

Lindsay's

ELECTRICAL BOOKS

**NEW PHONE
NUMBERS!**

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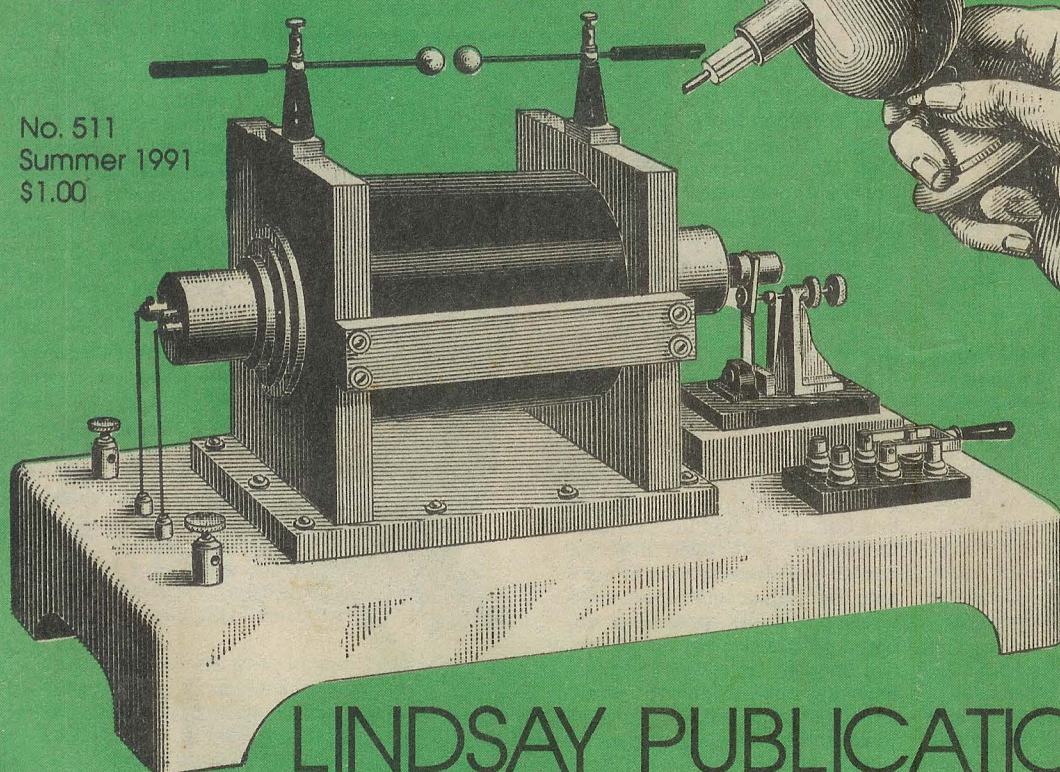
815/935-5477

(We ran out of room, and had to move
into a larger warehouse! Mailing
addresses have not changed.)

Unusual, high quality electrical
and electronics books from
the past and present...

Old Time Shortwave Radio
Lightning Bolt Generators
Electrical History
Fringe Science
Early Television
Motor Repair
Tesla Coils
Batteries
Projects

No. 511
Summer 1991
\$1.00

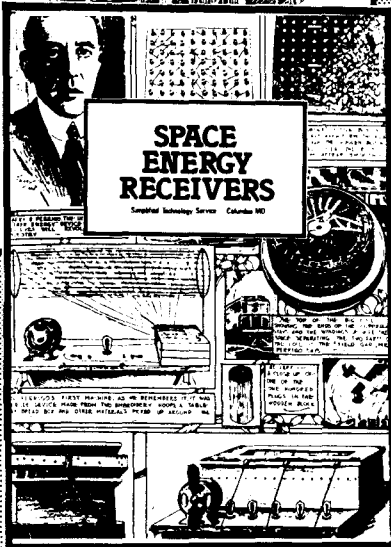


LINDSAY PUBLICATIONS INC

PO Box 12, Bradley IL 60915-0012 • FAX: 815/468-3694 • 815/468-3668

Space Energy Receivers

ELECTRICITY AS FREE AS AIR
IS INVENTOR'S AIM



SPACE ENERGY RECEIVERS

Simplified Technology Service Columbia MO

SPACE ENERGY RECEIVERS

by Simplified Technology Service

"Space energy receivers... may be defined as a class of devices which apparently collect electrical energy from the surrounding space without applied force, by some process other than chemical or mechanical action..."

What? Pull energy out of thin air? That's what they claim. Do they work? At least a few were built to defraud gullible investors. BUT! There IS energy out there, and extracting it would be comparable to geothermal power. You're not creating energy, just tapping existing reserves.

Do the machines described here really work? Maybe. Maybe not. Whether you believe they do or not is of little importance because either way you'll find this interesting reading. You'll enjoy the photos, diagrams, and claims.

You'll learn about Tesla's patent, the Moray unit, the Yglesias machine, the Gustav Weise receiver, the Meyers machine, Hartwig's pendulum observations, Perrigo's fantastic machine seen in Congress, the Mushroom generator, and excerpts from a formerly classified British report on a world War II German machine, that is now declassified.

In addition, you get reference books to read, a list of experimenters, and other tidbits. It's quite interesting, and if there is one complaint I have, it's that "Receivers" is just not long enough. I think you'll like it. Very unusual! Order a copy. 8 1/2 x 11 booklet, 21 pages. Cat. No. 882 \$4.50

The "Electro" Sending Helix
WITH PLANT LAMP DEVICE
No. 8271 \$6.00

This instrument is a complete set of apparatus for sending and receiving wireless signals. It consists of a sending helix, a receiving helix, a plant lamp, and a battery. The plant lamp is a special device that allows the user to send and receive signals without the use of a battery. The instrument is designed to be used in a variety of situations, including for the purpose of sending and receiving signals from a distance.

The "Electro" Commercial Oscillation Transformer
No. 8272 \$6.00

This transformer is designed to be used in a variety of situations, including for the purpose of sending and receiving signals from a distance. It consists of a primary coil, a secondary coil, and a core. The transformer is designed to be used in a variety of situations, including for the purpose of sending and receiving signals from a distance.

Midget Jr. Button
No. 8273 \$0.14

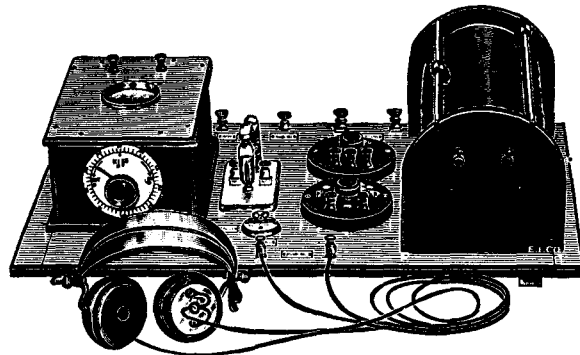
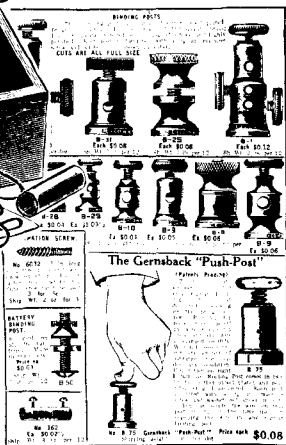
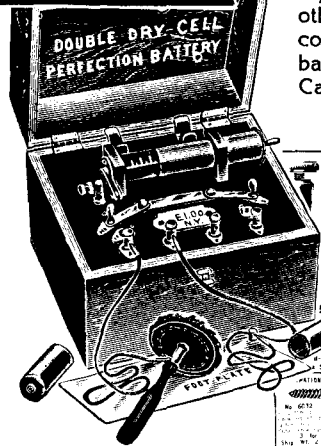
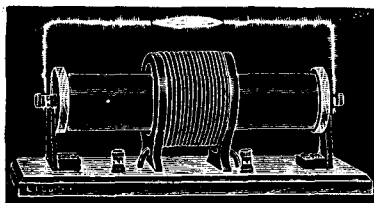
BATTERY CIRCUIT SWITCHES
No. 8274 \$0.07
No. 8275 \$0.08
No. 8276 \$0.10
No. 8277 \$0.13

Porcelain Base Switches
No. 8278 \$0.16
No. 8279 \$0.24
No. 8280 \$0.24
No. 8281 \$0.32

1914 CATALOG ELECTRO IMPORTING CO reprinted by Lindsay Publications

It's 1914! And you've decided to build a receiver to listen in the wireless traffic that is beginning to fill the airwaves. Or you've decided to build a powerful sparkgap transmitter. Or you can't wait to duplicate Tesla's experiments. But where do you get parts?

Here you'll find the most complete selection 1914 electrical components available anywhere! You'll find the peroxide of lead detector, the "Electro" Telegraph Key, the "Electro" Leyden Jar, and even the "Electro" 1/2 KW Transformer coil that would enable you to build a 100 mile wireless coil. You'll find illustrations, text, even practical how-to tips on everything imaginable: electrolytic interrupter, kick-back preventer, precision coherer, polarized relay, vario selective coupler, "Interstate" wireless receiving outfit, "Telimco" wireless telegraph outfit no. 4, the Omnigraph No. 2777, "Bull-Dog" spark coil, fancy Geissler tubes, the experimental X-Ray outfit, X-ray tubes, storage batteries, tungsten flashlights, household wiring sockets and switches, rheostat, 150 watt gasoline home lighting plant, hydro-electric plant, electric motors, electro-



Electro Importing 1914 Catalog

144 Pages of
Incredible
Electrical Parts

plating outfit, Tesla transformer, electrical medicine machines, Wimshurst machine, hand tools, and much, much more.

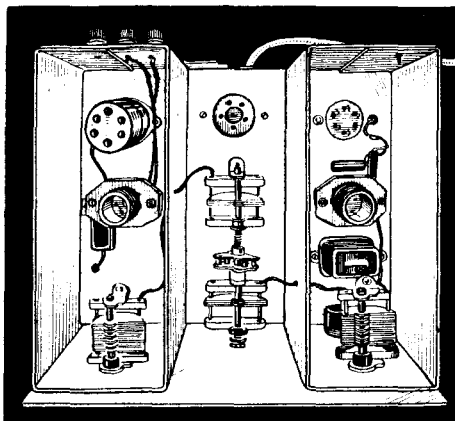
(No, you can't need any of the equipment listed. If you try, you'll just make a fool of yourself.)

This is a small, well-illustrated, jam-packed catalog that features unusual equipment that is no longer manufactured and no longer used. This is fun reading and great reference for the collector, restorer, or builder of replicas. You'll find this quite enjoyable. I recommend it to any antique hardware freak, in other words, YOU! Get a copy. 4 1/2 x 6 1/2 paperback 144 pages Cat. no. 20587 \$7.95

Through the years the ARRL has continuously published excellent books on becoming a radio amateur. Here's "How to Become an Amateur Radio Operator and Secure a U.S. Government License including How to Learn the Code, General Radio Theory, Questions and Answers Covering the License Examination" published in 1934 by Short Wave Craft magazine.

Some of this is history - just fun to read. Some is radio theory but with vacuum tubes not transistors. Some is construction of radio receivers such as the 3 tube bandspreader, the super-heterodyne, and others. You'll even get a look into the secrets of the Hammarlund "Comet Pro".

You'll learn about code and phone transmitters including construction of a breadboard push-pull code transmitter and and early crystal controlled phone transmitter with amplifier



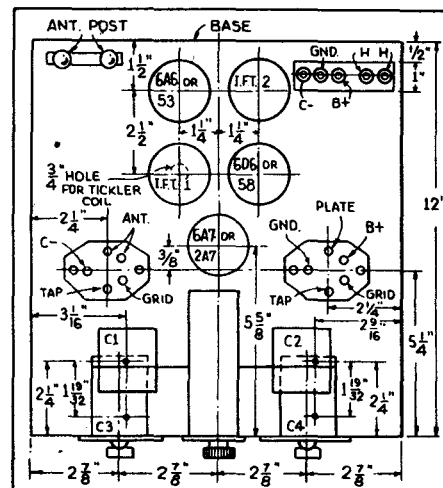
stage. The power supply, modulators and other pieces fit into an impressive homemade wooden rack mount transmitter guaranteed to impress (or scare) your 1934 neighbors!

In the back are a few ads including one for the famous National SW-3 regenerative receiver, the Kolster Model K-5 amplifier, and National's BM 3" midjet Velvet-Vernier dial.

This is fun reading and great info on early receivers and transmitters. It gives a view of amateur radio as seen from outside the ARRL. You might not want to put the transmitters on the air, but the receivers would be fun to build, and learning the code is still very valuable. Fun reading. Worthwhile addition to your collection. Order a copy! 7 1/2 x 9 1/2 paperback 72 pages

Cat. no. 20730

\$5.95



Short Wave Radio QUIZ BOOK AND KINKS

by Short Wave & Television Magazine
reprinted by Lindsay Publications

Short Wave & Television Magazine frequently published reader's questions and answers as well as small "fillers" of circuits, hints, tips and kinks. In 1938 a collection of these tiny articles was reissued in this 64 page book.

You'll get tips on winding coils, bending chassis, soldering phone tips, making a lightning arrester from a spark plug, plans for a rf amplifier, a 2 tube SW set, another for a motorcycle, a 2 tube battery set, a 6.3 volt 3 tuber, and on and on. There are hundreds of hints and kinks here!

You'll wish the stories were longer, but there are so many great ideas (some a little ridiculous) that you won't complain. It's fun reading. I like it, and I think you will, too. Order a copy. 5 1/2 x 8 1/2 paperback 64 pages

Cat. no. 4945

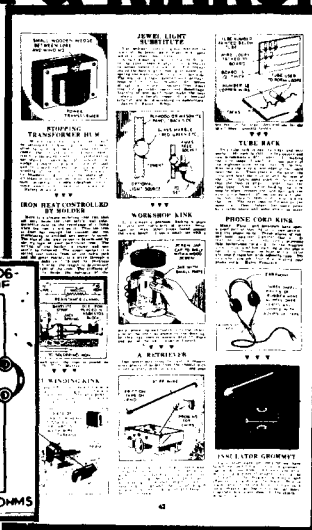
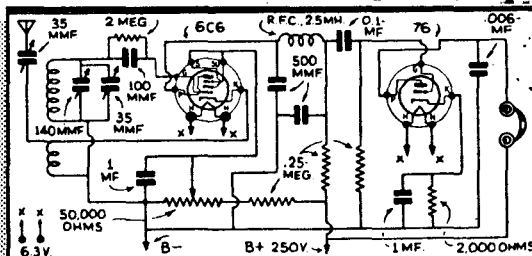
\$4.95

SHORTWAVE QUIZ BOOK & KINKS!

CONTENTS

- SW Receivers for 110 VAC Operation •AC-DC Receivers
- Battery Type SW Receivers •Short-Wave Antennas •Antenna Hints
- Short-Wave Converters •Pre-Amplifiers •Miscellaneous SW Hints
- Beat Oscillators •Power Supplies •Audio Amplifiers
- A Folded Doublet to Save Space •How to Get Best DX •Simple 1-Tube Booster
- A Twin Pentode Receiver for the Beginner
- Kinks for SW "Fan" •Easy-to-Build Short Wave Transmitters
- Code Practice Oscillators •5-Meter Receivers •"Ham" Kinks

Fantastic
1938
Collection
of
Hints &
Tips



Gernsback's EDUCATIONAL LIBRARY

Gernsback's Educational Library
reprinted by *Lindsay Publications*

In the late 1930's Hugo Gernsback's Radio Publications company in New York published a series of ten shortwave radio booklets to satisfy the public's growing interest in building and operating shortwave sets.

Each booklet is 32 pages in length, is well illustrated, and has a brilliant yellow cover. Each covers a different topic from radio construction to electrical experiments to television.

You'll find these little booklets fascinating reading, full of ideas, and you'll find each to be a slice of early radio history back when radios were built on breadboards with handtools instead of printed circuits.

The original booklets were printed during the Great Depression on inferior quality paper and are now quite rare. But you can get high quality copies on quality paper and enjoy them again.

Order a set today!

No. 1 How to Build 4 DOERLE SHORTWAVE SETS

Build the 2-tube 12,500 mil "Doerle" shortwave receiver and the 3-tube signal gripper. You then get instructions on modifying these two basic radios into a bandsread receiver and an 110 VAC operated version.

Cat. no. 820 \$2.25

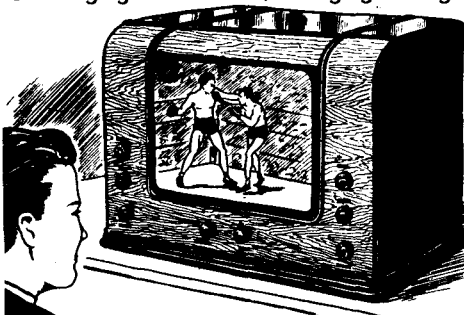
No. 2 How to Make Most Popular All Wave 1 and 2 TUBE RECEIVERS

Build a Megadyne one-tube loudspeaker set, a beginner's 1 tube AC-DC set, a four-in-two all-wave all electric 2-tube set, a super-regenerative single-tube loudspeaker set, a portable 2-tube battery loudspeaker receiver, and a beginner's one-tube all-wave battery set.

Cat. no. 821 \$2.25

No. 3 ALTERNATING CURRENT FOR BEGINNERS

Study theory, and perform home experiments with AC such as lighting a lamp induction, making a simple electric horn, watch demagnetizer, simple test for motor armature defects, bell-ringing transformer, charging storage



batteries from an AC source, simple test for condensers, AC electromagnets, magnetic levitation, simple motors, lamp dimmer, and more.

Cat. no. 822 \$2.25

No. 4 ALL ABOUT AERIALS

Part one covers receiving antennas with notes on tuned antennas, broadcast antennas, low impedance transmission line, doublets for shortwave, transposed leadin, a SW antenna tuner, antenna construction, a double-doublet all-wave antenna, doublet installations and more. Part II covers transmitting antennas for amateur stations including the half-wave antenna, output matching circuits, construction, the Zepp, a counterpoise system, and more.

Cat. no. 823 \$2.25

No. 5 BEGINNERS' RADIO DICTIONARY

A complete 32 page dictionary for beginners. Obviously, most the terms are still in use, but some are not. Brief definitions and a number of illustrations are provided. Learn about acceptors, counterpoise, ferromagnetic modulation, interrupter, keying flicker, strays, water rheostat and much more.

Cat. no. 824 \$2.25



No. 6 How to HAVE FUN WITH RADIO

Unusual experiments! Try the "Talking Newspaper" which is nothing more than a loudspeaker made from aluminum foil and newspapers! Also try talking gloves, radio electric chair (put a frying pan in your pants), visual music, dancing to silent music, musical and talking gadgets, the radio dancer, home broadcasting, the door that talked, and more!

Cat. no. 825 \$2.25

No. 7 How to READ RADIO DIAGRAMS

Learn how to translate radio diagrams into physical equipment. You get pictures, definitions, and equivalent symbols of radio components. Then you'll see circuit diagrams for a variety of circuits from crystal sets to multi-tube radios as well as the physical layout they represent. Basic information, but essential to



radio newcomers in 1938.

Cat. no. 826 \$2.25

No. 8 RADIO FOR BEGINNERS

Learn about wave analogies, principles of transmitting, and receiving principles. A lengthy section on receiving instruments will show you how tank circuits tune to particular wavelengths and how tubes and other components perform their jobs. You also get a section on antennas and aerials. Another essential booklet for the beginner.

Cat. no. 827 \$2.25

No. 9 SIMPLE ELECTRICAL EXPERIMENTS

Build a galvanometer, experimental magnet, simple motor, electric shocker, microphone, arc lamp, electric furnace, arc welder, a home-made key, batteryless flashlight and more. Perform tricks with telephone receivers and experiments with lamps, neon lamps, condensers, talking condensers, static electricity, and more. You'll find a brief section on making a magnet, on rheostats and how to use them, rectifiers, simple measuring instruments, heat or cold from junction of dissimilar metals, handy wire gauge, musical instruments, and more.

Cat. no. 828 \$2.25

No. 10 TELEVISION

In 1938 this was high-tech electronics! You get a primer of television, including details on mirror scanning, Scophony system, and movies for television. Study the kinescope or cathode ray tube and how the sweeping beam is synchronized. Learn about receiver antennas, how TV programs are broadcast, network TV, and even a Scophony system for color television! Quite interesting.

Cat. no. 829 \$2.25

PACKAGE Numbers 1 through 5

Get all five for one lower price. Save \$1.30

Cat. no. 930 \$9.95

PACKAGE Numbers 6 through 10

Get all five for one low price. Save \$1.30.

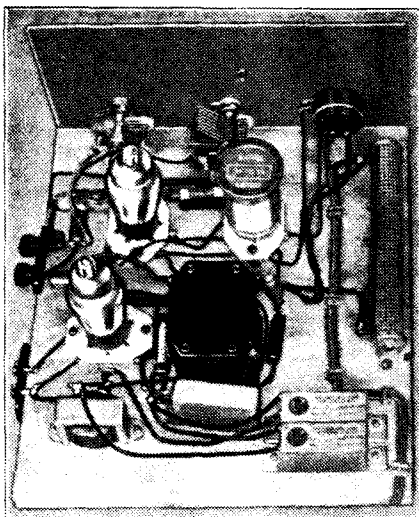
Cat. no. 931 \$9.95

HAMMARLUND SHORT WAVE MANUAL

Third Edition
reprinted by Lindsay
Publications Inc

For only ten cents you could buy this 32 page booklet and choose which of the twelve different shortwave radios you wanted to build. These were the depression years, and Hammarlund, one of the most reputable manufacturers of radio parts, was eager to sell you what you needed to build a low-cost receiver.

You'll like this! The plans offer interesting detailed text that makes construction easy along with the basic schematic diagram, a parts connection diagram, tube pin layouts, coil charts and lots of photographs. I haven't seen any plans better done than these!



The "Pentaflex" uses a single 6A7 pentagrid converter tube as a regenerative detector and as an audio amplifier. This could be fun to build.

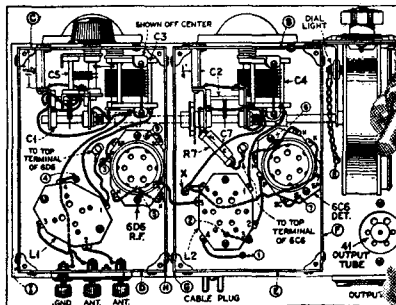
12 SW RECEIVERS from Hammarlund!

You get—

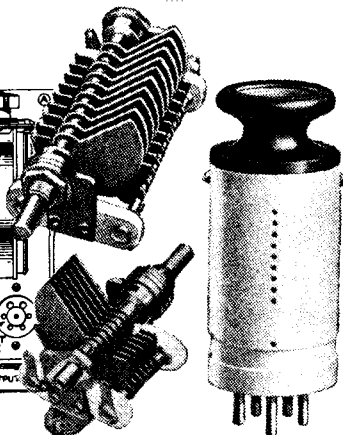
- A Boy Scout's S.W. Receiver
- ARRL Ham Receiver
- The Argonaut
- The AC-DC 2 Tube S.W. Receiver
- Doerle 2-Tube Receiver
- The Dragnet
- The Gainer
- The Pentaflex
- A Power Pack for S.W. Receivers
- Radio Amateur's Handbook 3-Tube Band Spread
- AC set
- The Ray Five Meter Set
- The Skyscraper
- A Three Tube S.W. Pentode Receiver

And the "Ray Five Meter Set" is a three tube super-regenerative set for the then-experimental band of 5 meters (about 60 MHz). Back then a five meter set was a marvell And there are nine other circuits plus a battery eliminator project.

Great 1937 Plan Book!



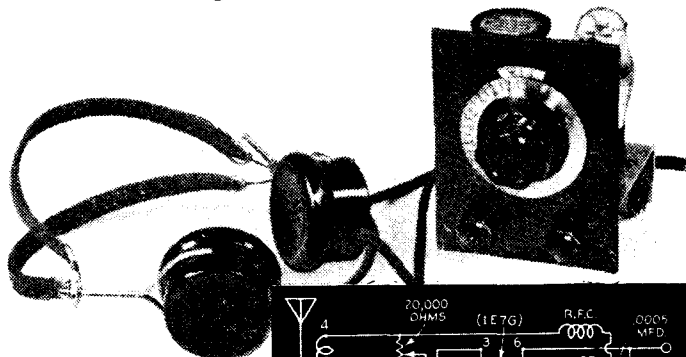
This is great stuff! For instance the "AC-DC 2-Tube SW Receiver" uses two double tubes, a 6F7 as an untuned RF amplifier and a tuned regenerative detector, and a 12A7 as audio amplifier and rectifier. The circuit is surprisingly simple, and yet I'm sure it performs very well!



This is fun reading and a great source of construction ideas. Get a copy of this. The price is reasonable and the content is super. Order a copy today. You'll enjoy it. 5 1/2 x 8 1/2 booklet 32 pages Cat. no. 4937 \$4.95

Radio for the Millions

Great World War II Era
Magazine Articles

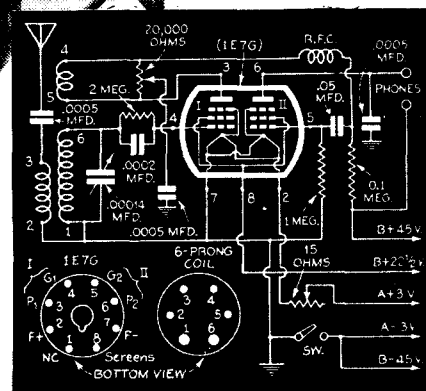


RADIO FOR
THE MILLIONS
by Popular
Science Monthly
reprinted by Lindsay
Publications

From the pages of World War II vintage issues of Popular Science Magazine came this reprint of well illustrated electronics articles on everything from phonographs and shortwave radios to cabinet design and radio servicing.

This is another of those jam-packed project books that are so much fun to read. By careful scrounging and trading you can still get many of the parts and relive the early days of electronics before transistors and integrated circuits.

Every one of the dozens of articles is illustrated with sharp photographs, schematic diagrams,



and parts lists. Some of it seems really primitive and amusing. Other projects almost demand that they be built!

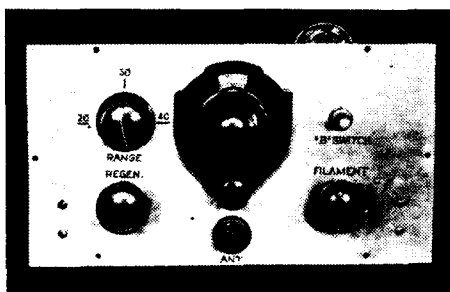
Great stuff from the days before miniature vacuum tubes. Endless enjoyable reading, especially if you remember reading this stuff as a kid. Get a copy of this. You'll really like it. 6x9 paperback 192 pages

Cat. no. 20196 \$8.95

PARTIAL CONTENTS

One-Control Beginner's Radio; Get Started in Radio; Three-Tube TRF Receiver; One-Tube Loudspeaker Set; Four-Tube Speaker Receiver; Four Dollars Builds This Set; More Power for Your Two-Tube Radio; Home-made "Audio" Telegraph; Three-Tube Phonograph Receiver; Four-Tube TRF Receiver; Inexpensive Dual-Turntable Phonograph; Kitchen Radio; Two-Tube Set Gets Foreign Stations; Two-Way Radio Station; Combination Receiver and Amplifier; "Letter" Radio Can Be Mailed; Build an FM Receiver for \$22; A Tuner for Any Broadcast Set; World's Smallest PA Units; Twin-Bed Radio; Floor-Lamp Radio; Practice Code Sender and Receiver; Pocket Receiver for Sports; Tiny Portable

Operates Anywhere; Low-Cost Power Supply; Three-Tube Superhet; Compact All-Wave Set; Two-Tube AC-DC Receiver; Portable Radio-Phonograph; One-Tube Shortwave Set; Sliding Panel Tunes Novel Receiver; All-Wave Bands on Two Tubes; Compact Radio-Tube Tester; Europe on One Tube; Bicycle Radio; "B" Supply for Portables; Priority Receiver Uses New Tuning; Compact Rectifier Unit; Midget Broadcast Set; Week-Enders' Radio; Midget AC-DC Receiver; Book-End Radio for Your Den; One-Tube All-Electric Set; Superhet for Beginners; Pocket-Size Radio Tester; "Wireless" Radio Phonograph; Low-Cost Home Recorder; Tom Thumb Radio; Suitcase Phonograph; Two-Tube Portable; and much more!



1936 Radio Data Book

1936 RADIO DATA BOOK

by Radio News Magazine
reprinted by Lindsay Publications

Get the latest radio news by studying the best articles from the 1935 issues of Radio News and Shortwave Radio Magazine.

Learn about the latest developments in television - disk scanning versus cathode ray systems. Learn about a new Canadian television station.

You'll discover the brand new metal octal-base tubes and the receivers that use them such



as the Atwater Kent 649, the GE A-82, and the Super Sky rider. You get plans for shortwave radios: a single tube all-wave set, a 3-band set, and 9-tube amateur receiver, and more.

Amateurs learn how to build transmitters, a 3/4 meter transceiver, and how to use the latest transmitting tubes.

Learn to build broadcast receivers: a universal superhet, a 2-volt DX'er's Super, a Superhet De Luxe, and more.

You also get articles on servicing, on audio amplifiers, on engineering design, and on radio experimenting. And you also get lists of stations broadcasting in the US and world shortwave stations. Every page will well illustrated with photos, schematics, drawings and tables.

This is a fun book for old-time radio buffs. It's useful if you're a builder, and great reading whether you build or not. Another fascinating book for your radio reference library. 8 1/2 x 11 paperback 64 pages

Cat. no. 20218

\$5.95

DOERLE Receivers & Transmitters

DOERLE CATALOG

originally offered by Oscar Kusterman, NY
reprinted by Lindsay Publications

Here's a great little catalog from out of the 1930's issued by the New York radio dealer, Oscar B. Kusterman. You get great illustrations and descriptive copy of receivers and ham radio transmitters, along with schematics and practical details.

Examine the Doerle Model D-7 with its 6K7 RF amp feeding a regenerative detector and a powerful AF amplifier. A separate 6J5 acts as a superregenerative detector for 2 1/2, 5, and 10 meters. How well did it work? I don't know. Build one and see. You won't get any how-to, but you do get the complete wiring diagram.

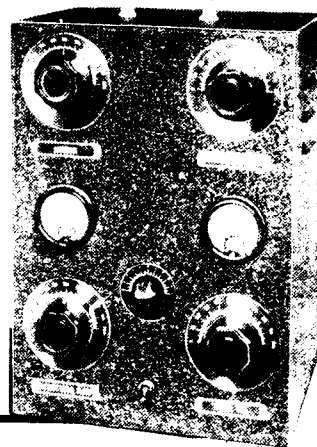
You could buy the 2 tube SW receiver using 37's in a regenerative configuration to pull in local and foreign broadcast stations and bands from 600 to 12 meters. A kit sold for \$2.50 less tubes, or ready to use for only \$4.00.

And there's the 3-tube AC-DC receiver good for 600 to 12 meters. Using the three 76 tubes, this model could run off batteries or 110 VAC, and made a "fine personal set for use with headphones."

You'll find the five tube BS-5 Five Band Bandwidth Receiver, the Doerle Model D-5 cover 1000 to 9 meters, the Doerle "19" single tube receiver kit, the Doerle AC 4, and more.

You could have purchased the HF-19 5-meter transceiver kit, the TR4 5-meter transceptor, a two stage audio amplifier, or a 10 watt modulator. The HF-35 tri-tet transmitter could put out 35 watts on the 160 through 20 meter amateur bands using metal receiving tubes. And you'll find several more transmitters, receivers, and modulators, along with miscellaneous parts needed for construction.

You'll even find one page with circuits "for the fan who builds his own receiver hookups." At the back of the catalog is an order blank, but don't try to use it. I've already notified the New



Beginner's 2-Tube

A two-tube 2-tube B-W Receiver for head phones receiving of U.S. and Foreign stations.

BATTERY OR ELECTRIC

S-W Receiver

The Smallest Receiver on the Market

A powerful battery operated model short wave receiver which uses the new 2 volt filament type tubes or 6.3 volt in electric model. Operates entirely from inexpensive batteries. This simple receiver uses two tubes as its main regenerative detector and one stage audio frequency amplifier.

Produces unusually good volume on headphones. Will receive foreign as well as American stations with a volume and regularity that will surprise you and your friends.

All parts and factory assembled mount on a heavy black steel finished metal cabinet. All holes are drilled and fitted. Simple easy to follow instructions enable even the beginner to obtain excellent results.

Price, complete with tubes and coils for 12 to 600 meters and ready to use \$4.00

Double headphones, if desired (extra) 1.50

In kit form, factory assembled, with coils 12 to 600 meters, but less tubes and seaweed 2.50

If tubes are desired, add 1.50

Available in electric model of same price upon special order.

Note: Specify whether you desire electric or battery operated model.

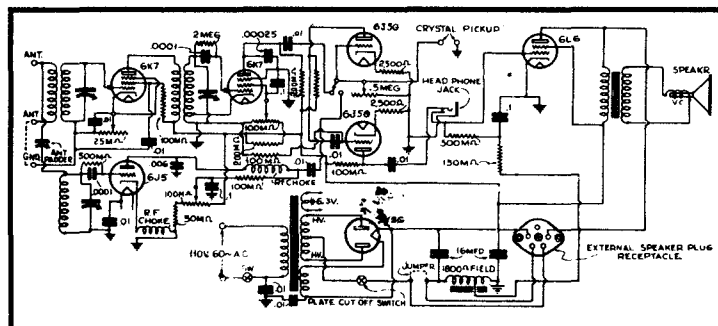
Diagram of three Beginner's Receiver

Battery set using two type 37's.

York City post office, and if you try to order any of this merchandise,

postal authorities will track you down and have you put away where you belong.

But that doesn't mean you can't browse through this catalog and imagine operating one of these sets. What's more, you can start searching for old parts so that you can build one of these famous little radios.



Get a copy of this. It's well illustrated and fun to read. And it's inexpensive. Order a copy today! 8 1/2 x 11 booklet 24 pages well illustrated

Cat. no. 20455
\$6.50

PRIMARY BATTERIES!

PRIMARY BATTERIES

by Henry S. Carhart

reprinted by Lindsay Publications

Great! You've built a radio, a Tesla coil, or some other piece of electrical gear. How are you going to power it? Sure, you can buy batteries, or plug it into the wall, but wouldn't it be more authentic, more impressive if it were powered by a bank of batteries that you built as well?

You can find instructions about cell construction, but they tell you little else. Here's a great little book that covers the characteristics, construction, performance, maintenance, and measurements of primary batteries, that is, batteries that

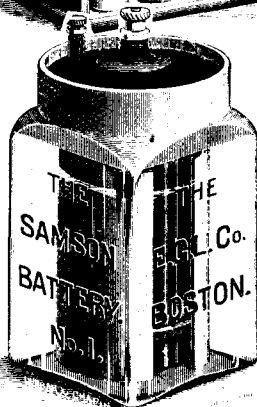
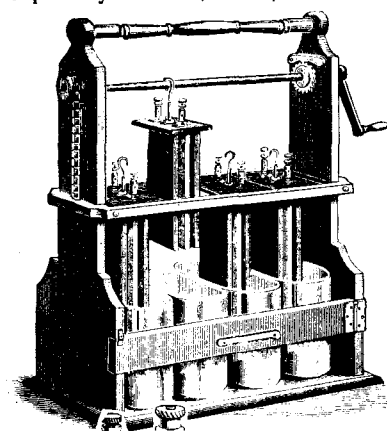


tum chemicals into electricity.

This is not really how-to. You won't be given dimensions, parts lists, nor detailed formulae. In many instances you may get enough information to build a successful cell. What you do get is what I call "practical theory" - knowledge that will help you understand turn-of-the-century batteries and get the most from them.

Chapters include introduction, simple voltaic cell, potential and electromotive force, closed circuit batteries, open circuit batteries, batteries without a depolarizer, standards of electromotive force, miscellaneous batteries, battery tests, grouping of cells, and thermal relations.

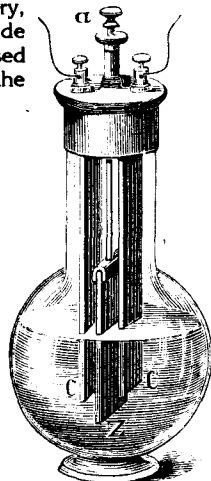
The chapters are actually broken into 118 sections such as experiments on the polarization of a simple cell, defects of the Daniell cell, the bichromate battery, the copper-oxide battery, the closed Leclanche cell, the



Smee cell, the Law battery, the Gassner dry battery, Lord Rayleigh's form of the Clark element, Minchin's seleno-aluminum cell, Jablochkoff's battery, test of a silver chloride cell, grouping dissimilar cells, application of the Bunsen cell, and much more.

Again, this is not a construction text. Once you read this book though, you can decide what type of battery to build and go from there. Why waste your time and money building a battery that won't do the job? Know what you are up against before you start.

Excellent book. Great illustrations. Easy-to-read text. Understandable theory. Worth having. Order a copy! 5x7 paperback 208 pages Cat. no. 20536 \$8.95



100 Radio Hook-ups

by Maurice L. Muhleman

reprinted by Lindsay Publications

This inexpensive booklet first appeared in May 1923 and sold so fast that in a year's time they had to go back to press nine times! It's no wonder. In the early 20's the magic of shortwaves was discovered, and experimenters wanted in on the action.

You can go back and discover both short- and long-wave radios all over again. You get 100 different circuit diagrams using triode vacuum tubes, honeycomb coils, variometers, A.F. transformers, B batteries and all the rest. I can't help thinking that you could use these circuits with modern field-effect transistors and parts salvaged from transistor radios to build equipment comparable to that of seventy years ago. If you're good at scrounging parts, you might want to build a replica.

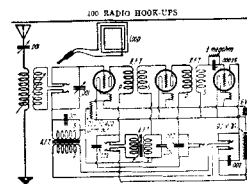
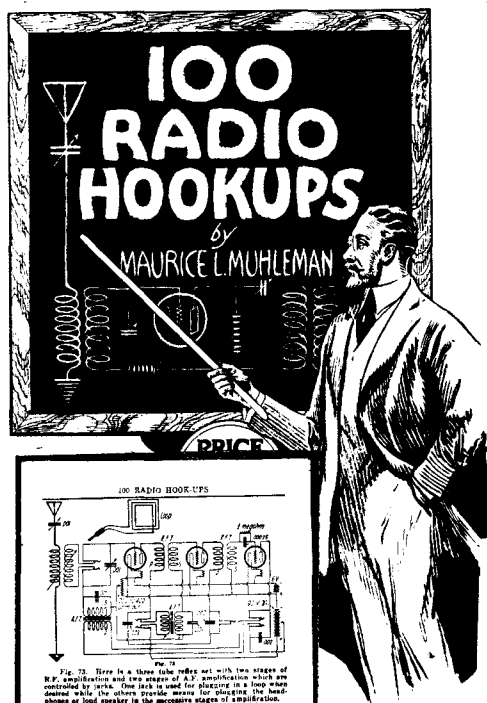


Fig. 73. Here is a three tube radio set with two stages of RF amplification and two stages of AF amplification which are controlled by a single control knob. One tube is used for detecting and the other two provide means for changing the headphones or loud speaker in the successive stages of amplification.

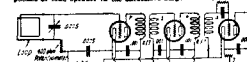


Fig. 74. Similar to the preceding one, but with a single control knob. The shorter lines show here.

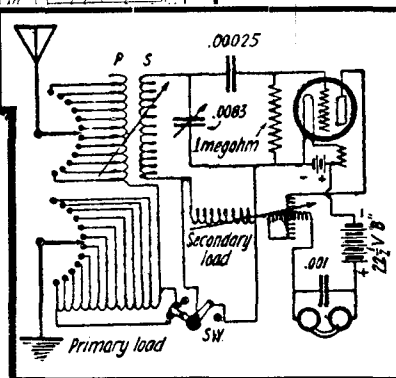


Fig. 75. The construction of a detector and one stage audio frequency amplifier are shown. A single control knob is used to tune the detector and the audio amplifier.

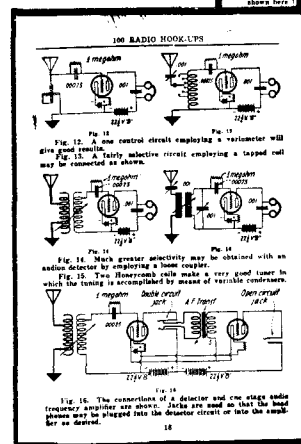


Fig. 76. The construction of a detector and one stage audio frequency amplifier are shown. A single control knob is used to tune the detector and the audio amplifier.

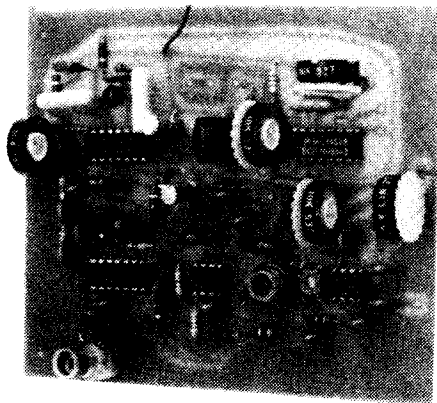
You get an introduction on part symbols and how to read a hook-up. Then you get hook-ups for crystal sets, plain vacuum tube sets, regeneratives, the famous Reinartz, improved Reinartz and other combination sets, RF amplifier sets, Neutrodynes, reflex circuits, super-regenerative, super-heterodyne, and several miscellaneous sets.

You don't get detailed coil data, specifications, or how-to. This was an idea book for people

who had already built a radio and wanted to try something else.

What I don't like about the book is that the original was printed on really cheap paper. Some of the impressions were too light on some pages and so dark on others that the type smeared. The original left a lot to be desired. But we managed to "clean" up the original so that it would reproduce reasonably well. It's not as sharp and clear as I would like, but I doubt that I will ever see another original copy, let alone one that is of better quality.

I like it. Small, inexpensive and worth having! It's from the golden age of radio. Order a copy! 5x7 paperback 48 pages Cat. no. 20641 \$3.95



Video Scrambling Secrets!

VIDEO SCRAMBLING & DESCRAMBLING
for Satellite & Cable TV
by *Graf & Sheets*

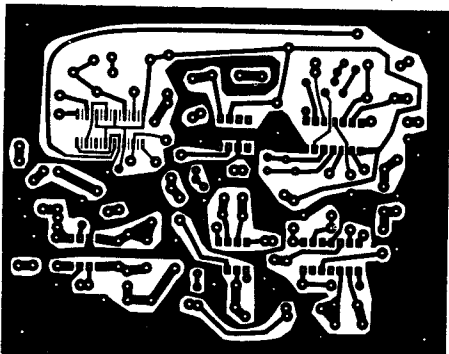
If you have purchased or plan to purchase a satellite dish to capture signals coming from the many Earth-orbiting satellites, this book is for you.

You get:

- An understanding of encoding/decoding systems
- The theory and techniques of video encryption and decryption
- An overview of the rules and regulations governing the availability and use of satellite signals, antennas, and programming materials
- Schematics and details for several encoder and decoder projects.

Originally published in 1987, this book provides detailed information on everything from simple cable encryption systems to commercial satellite systems such as VideoCipher II™, the B-Mac System, and even the Data Encryption standard.

Although the authors are quick to point out that the information is not to be misused in theft of signal, they have provided a wealth of schematics, printed circuit board layouts, IC chip specs, patent reprints, list of satellites and the scrambling systems they use and much more. This is a quality master reference that any video/satellite fanatic will find useful. Order a copy today! 8 1/2 x 11 paperback 246 pages Cat. no. 370 \$19.95



Official 1934 Shortwave Radio Manual

Official 1934

SHORT WAVE RADIO MANUAL

edited by *Hugo Gernsback & H W Secor*
new chapter by *T. J. Lindsay*

Build simple, high-performance old time A shortwave radios! You can. All of the secrets are here: the circuit diagrams, parts layout, coil specifications, construction details, operation hints, and much more.

Back in the 20's and 30's the only low-cost way of listening in on the newly discovered and fascinating shortwave radio frequencies was to build a set. Shortwave construction magazines flourished, even during the depression.

This is a compilation of construction articles from "Short Wave Craft" magazine. It's wall-to-wall how-to.

At the rear of the book are circuit diagrams, photographs, and design secrets of all short-wave receivers being manufactured in 1934 including some of the most famous: SW-58, the SW-5 "Thrill Box", the deForest KR-1, the Hammurand "Comet Pro", and many more.

You'll find that all the circuits use tubes since transistors hadn't yet been invented. And you'll also find that the original tubes listed are usually difficult to find today. Included is a new chapter showing how you can use transistors to replace hard-to-find vacuum tubes. You'll even see the circuit that was lashed together on a table top one night using junk box parts, one of my wife's hair curlers and alligator clips. When I hooked it up to an antenna strung across the basement ceiling and attached a 9 volt battery, signals started popping in like crazy. In a couple of minutes I heard an urgent message from a ship's captain off Seattle asking for a navigator to help him through shallow water. Not bad, considering I live near Chicago!

These small regenerative receivers are extremely simple, but do they ever



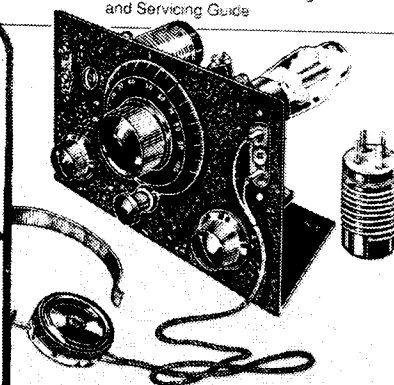
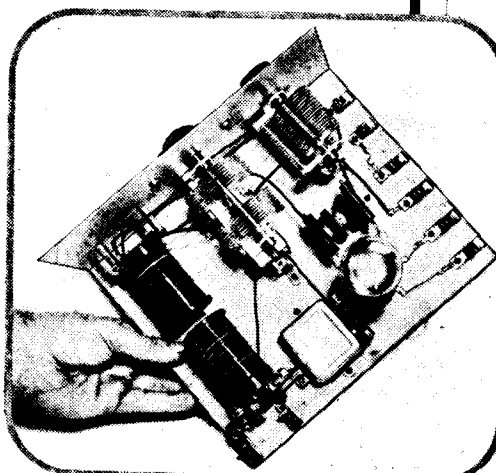
perform! I've built dozens of them, and they never fail to amaze me! Even master machinist, Dave Gingery has built these sets.

This is the nuts for the experimenter, the survivalist who is concerned about basic communication, shortwave listeners, ham radio operators who collect old receivers, and just about anyone interested in old-time radio.

Great book. Best old-time radio book I've ever seen. And I look at every one I can get my hands on. Consider it carefully. Even if you never build one of these radios, you'll get hours of enjoyable reading out of this book. Top rate. Order a copy. 8 1/2 x 11 paperback 260 pages Cat. no. 4643 \$14.95

1934 Official SHORT WAVE Radio Manual

Complete Experimenter's Set Building and Servicing Guide



reprinted by Lindsay Publications Inc

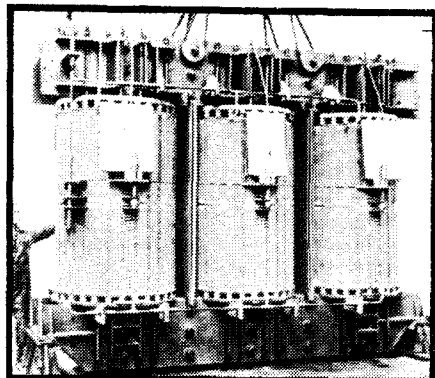
Introduction to MAGNETISM

Not too
simple

Not too
complex

Just
right!

MAGNETISM — An
Introductory Survey
by E. W. Lee



The back cover of this book explains it all very well...

"The lodestone was known to the ancient Greeks; the Chinese knew of the compass a thousand years ago; in the 16th century Gilbert described magnetic poles. Professor Lee takes us through the early experiments to the first modern accomplishments of Oersted,

domain boundaries; high-permeability alloys, their theoretical basis and uses; magnetic matrices used as computer-age storage devices; ferromagnetism and antiferromagnetism; the use of magnetism in modern scientific research; and problems of the earth's magnetism, including its meaning to Wegener theory of continental drift and solar phenomena."

You get 60 diagrams and sketches and more than 32 pages of photographs. If you want to explore the theory, you can study the mathematics that explains magnetism.

This is one heck of a lot of book for the money. And it's must reading for basement engineers, experimenters, even the guy who's trying to build a magnetic motor or perpetual motion machine. Great background information. Order a copy. 5 1/2 x 8 1/2 paperback 281 pages

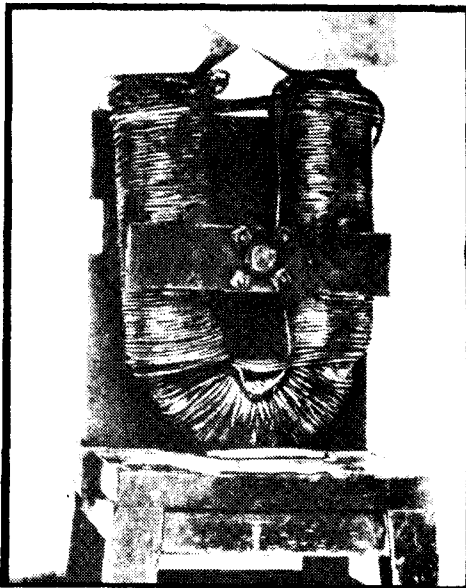
Cat. no. 365

\$6.95

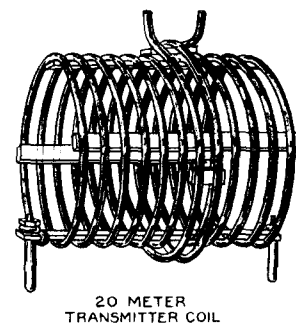
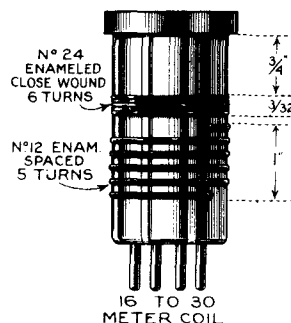
Ampere and Faraday. We then learn the principles behind electric

motors, dynamos, transformers, permanent magnets, synchrotrons, solenoids, memory banks in computers, beta-trons, magnetic supercooling, and other modern applications....

"The author shows us how magnetism 'works,' with reference to such concepts and principles as lines of force; ferromagnetism; the atomic theory of matter in relation to electromagnetic properties; paramagnetism and diamagnetism; quantitative measurement of magnetic force; domains and



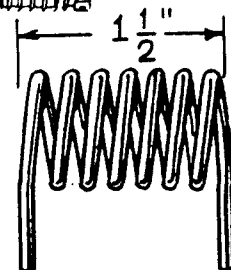
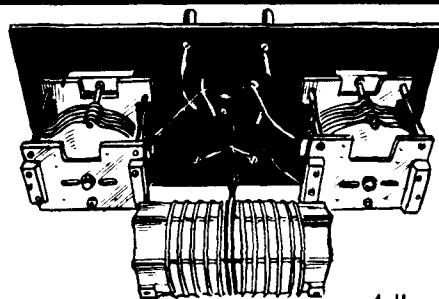
SHORT WAVE COIL DATA BOOK



SHORTWAVE COIL DATA BOOK by Radio Publications

Coils! Coils! Coils! They're the heart and soul of shortwave radio receivers and transmitters. A properly wound low-loss coil can make the difference between having an average piece of gear or a hot performer. And it seems the simpler the receiver, the more important the coils.

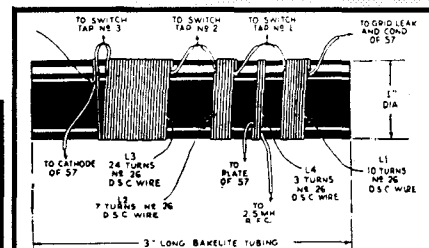
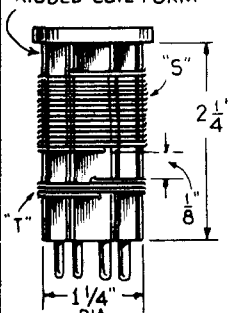
Here in one jam-packed booklet from 1937 are hints, tips, charts to help the shortwave radio builder design and build the best coils possible. You get informative articles from Gernsback magazines such as



- Coil Data for TRF Receivers
- The One Tube Oscillodyne Coils
- The Mono-Coil
- 2 Winding Coils for 10-500 Meters
- Coils for a 3 Tube Band Spreader
- and many others

You also get nine different circuit diagrams for the "Most Popular SW

RIBBED COIL FORM

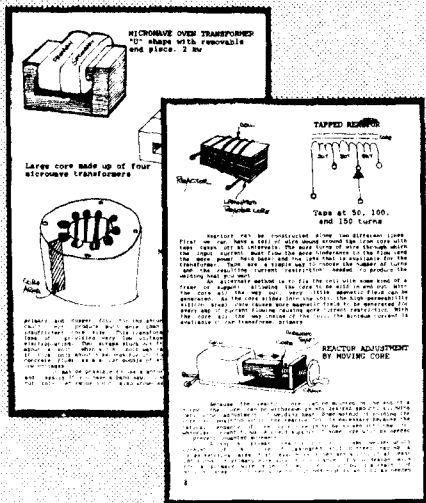


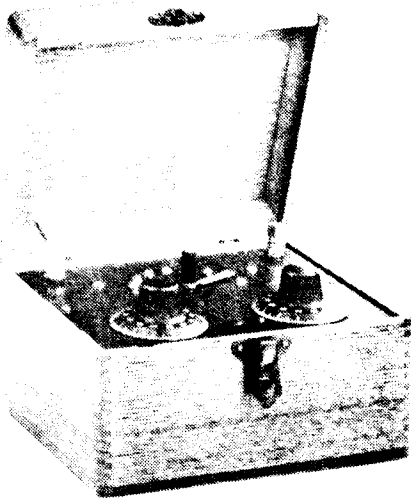
Tuning Circuits" and five "Transmitting Circuits employing the coils described".

This is highly specialized information on just one important topic essential to successful radio construction. It's only 16 pages but it's quite inexpensive and delivers. Get a copy! 8 1/2 x 11 booklet 16 pages Cat. no. 830

\$1.95

1937 Coil Data



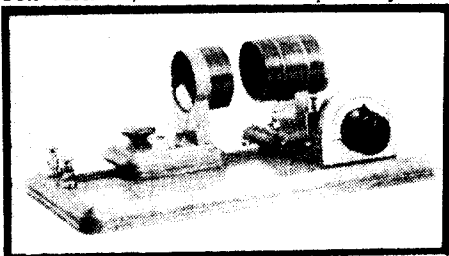


RADIOS THAT WORK FOR FREE!

*Build a High
Performance
Crystal Set!*

RADIOS THAT WORK FOR FREE
by K.E. Edwards

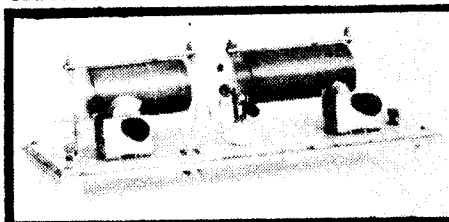
Build yourself a crystal set! You'll be shown everything you need to know - from materials to tools to techniques. Edwards will show you how to build "hot-rod" crystal sets with fancy features that can outperform the old oatmeal box versions, but are still simple. If you've



never built anything electronic at any time but would like to try, this is a great place to start. This book has become a classic in its field, and it gives me a good feeling. I think you'll like it, too. 5 1/2 x 8 1/2 paperback 138 pages — well illustrated

Cat. No. 314

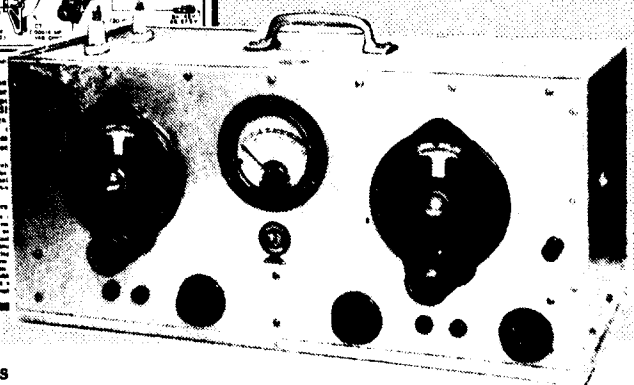
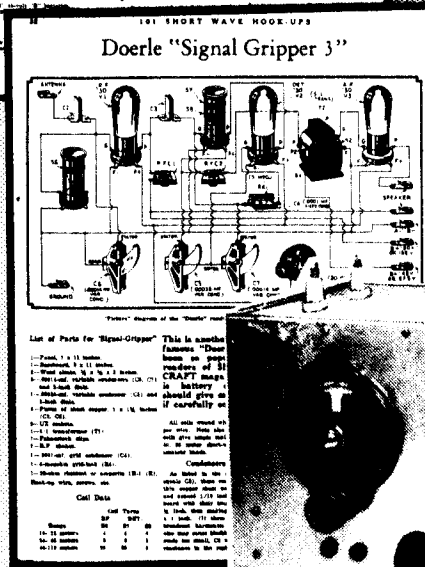
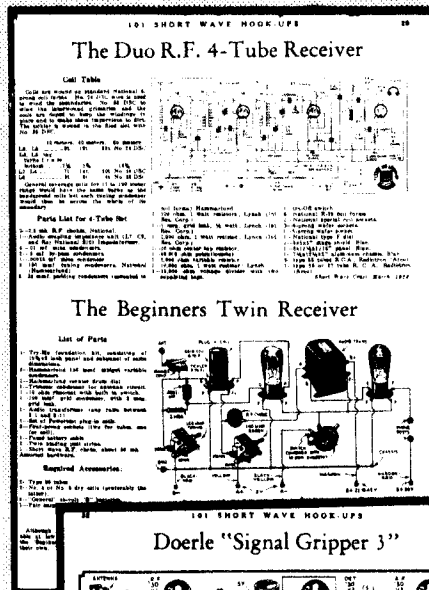
\$7.95



101 ShortWave Hookups

**Some of the
circuits
you'll find:**

The Mono Coil 2
Ham-Band Pee-Wee 3 Tuber
The Pal 2-Tube Portable
The Electrodyne 1-Tube Set
A Dual Regeneration Control
Set
An Advanced 5-Tube Receiver
Master Composite 4
Short-Wave Thrills on 2 Tubes
A 4-Tube Superhet
The Globe Girdler
Mitchell 7-Tube Superhet
Ultra Seven Portable All Wave
SuperHet
Short-Wave Megadyne
An Improved Super Regener-
ator
The 53 1-Tube Twinplex
Building a 2-Tube Oscillodyne
A Balanced-Detector Super-
Regenerator
A 5-Tube AC Oscillodyne Set
A 5-Meter Super-Regenerator
A German SW Set
A Symmetrical Input Super-
Regenerator
A 2-Volt 3-Tube Ham Set
5-Meter Transmitter and Re-
ceiver
and much more....



101 Short Wave Hook-Ups by Short Wave Craft

Somewhat I never get tired looking at old radio diagrams. I'm continually amazed at how much performance could be obtained from such a limited amount of relatively primitive equipment. I guess that's why I like this circuit book.

"This book has been prepared in response to many requests for a compilation of short-wave circuit diagrams which have appeared in Short Wave Craft magazine during the past few years. Where ever possible, complete parts lists have been given with the diagrams and, in some cases photographs of the equipment are also included...."

This is one big, fun picture book of radio circuits. It's broken into six broad sections entitled Straight S-W Receivers, S-W Super-

Great Radio Circuits from 1935!

hetrodynes, Super-Regenerative Receivers, AC-DC Receivers, Miscellaneous, and Transmitters. Unless I counted wrong, I totaled up 91 different circuits.

Get a copy of this. You'll like it. It's wall-to-wall fun. A crazy collection of radio circuits from about 1935. Order a copy. 7 1/4 x 9 1/2 paperback 72 pages

Cat. no. 20382

\$7.95



Strange Electronics Plans!

BUILD YOUR OWN LASER, PHASER, ION RAY GUN. . .

by Robert E. Lannini

Here's one of the most bizarre collections of how-to plans I have ever seen. You'll learn how to build high-power pulsed red ruby laser

- beginner's simulated laser
- visible red laser
- pulsed laser rifle
- ruby laser gun
- CO₂ laser
- laser light detector
- plain field generator
- phaser shock-wave pistol
- ultrasonic generator
- ultrasonic listening device
- 250 kv Tesla Coil
- ion ray gun
- magnetic field distortion detector
- light-beam communicator
- solid-state Tesla coil
- infrared viewer
- FM voice transmitter
- long-range telephone xmtr
- parabolic microphone
- paralyzing device
- wireless repeater xmtr
- much, much more!

gun, high-power continuous IR CO₂ Laser, ultrasonic field generator, programmable high-power ultrasonic generator, 250,000 volt Tesla coil, magnetic field distortion detector, solid-state Tesla coil, a variety of wireless "bugs", a super-sensitive parabolic microphone, electronic paralyzing device, battery charger and eliminator and much more.

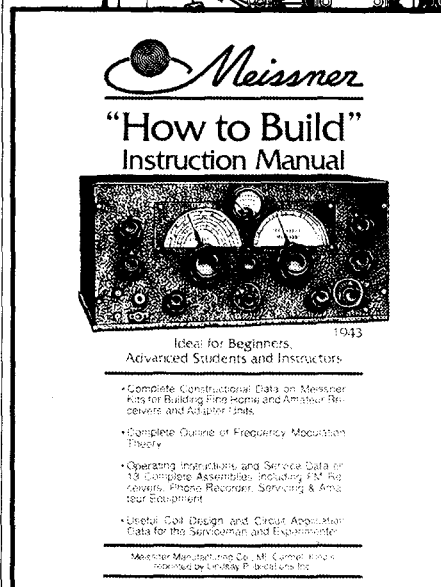
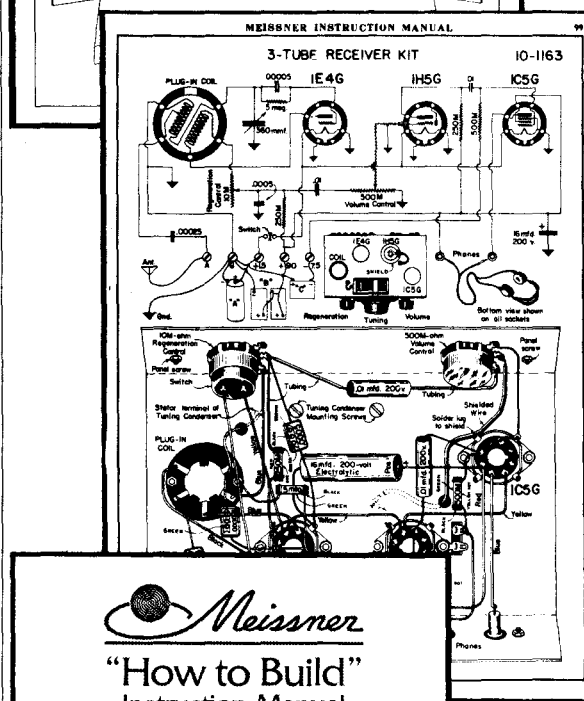
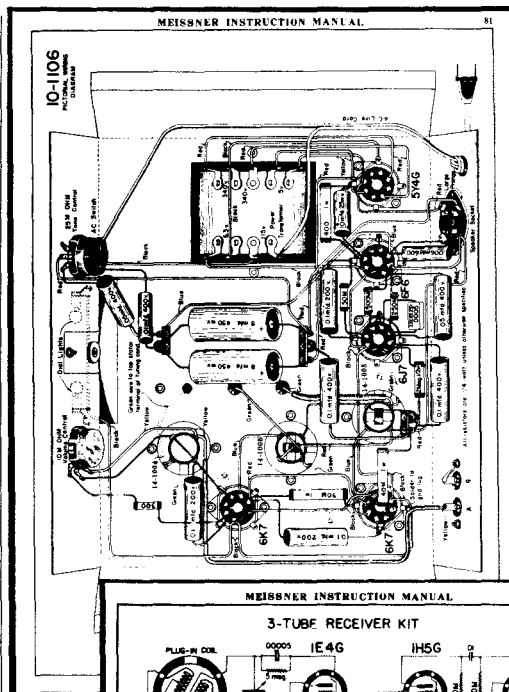
Lannini is an experienced electronics inventor, and holds many patents. He'll give you parts lists, wiring diagrams, assembly diagrams and all you need to get these projects built. I don't think that

it's any coincidence that almost every plan has a footnote telling you that kits are available from Information Unlimited, Inc., which is owned by the author and which advertises in the back of the science and mechanics magazines. No doubt, that firm's best selling plans have been reprinted in this single volume.

This book is expensive, but it delivers. I really like this, and I'm sure you will too. Order a copy, even if it has to sit for two years on the shelf before you get ready to build. Excellent book. 8 x 9 1/2 paperback 390 pages.

Cat. No. 346

\$17.95



time. It could be a lot of fun to build one of these old receivers and put it in a custom case!

You'll find that this is an excellent manual that gives a snapshot of the World War II equipment. Even if you don't care to build, you'll get a lot of fun just reading about it. Get a copy! 8 1/2 x 11 paperback 168 pages

Cat. no. 20633

\$9.95

Meissner "How to Build" Instruction Manual (1943)

by Meissner Manufacturing Company
reprinted by Lindsay Publications

"Containing complete constructional data on Meissner kits for building fine home and amateur receivers and adapter units. A complete outline of frequency modulation theory. Operating instructions and service data on 13 complete assemblies including fm receivers phone-recorder, servicing & amateur

MEISSNER MANUAL!

equipment. Useful coil design and circuit application data for the serviceman and experimenter. Fully illustrated with charts, radio formulae, schematic circuit diagrams, and pictorial wiring diagrams."

And that's the truth.

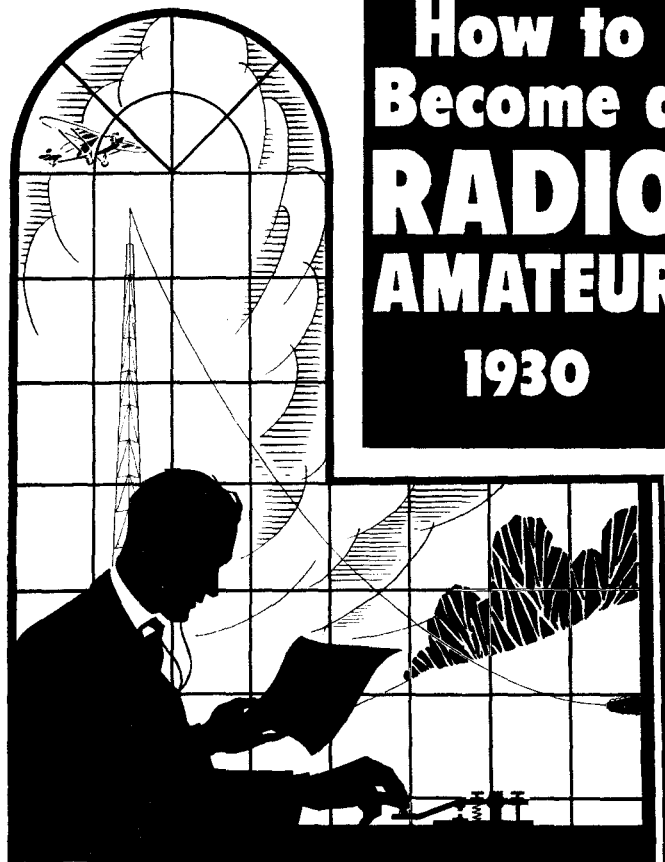
Meissner sold electronic kits, and this is a compilation of the instructions for building those kits. It was great advertising. The book would get you drooling, and you would want to start building. When you went out to buy the parts, you discovered that Meissner could sell you a complete kit of parts for less money than if you bought parts individually. Meissner had a sale!

You get general chapters on radio coils, antennas, and FM. Then you discover chapters on a FM-AM receiver, FM adapter, 5-band hi-fi superhet, the Custom All-Wave "9" (4-band hi-fi superhet), 8-Tube "Combination" Receiver, 7-tube AC "Utility" Broadcast set, 7-Tube Broadcast Police and Shortwave Receiver, 5-Tube AC TRF set, Two-Tube AC-DC

Midget receiver, a three-tube version, another two-tube version, a Portable Phono Recorder, Hi-Fi Public Address Tuner, Wireless Phonograph Oscillator, Signal Calibrator, the famous Deluxe "Signal Shifter," the "Signal Spotter," the "Traffic Master"—a 14-tube 5-band Communications Receiver, the "Traffic Scout"—a 9-tube 5-band Communications receiver, and more. I count 36 different sets.

Each chapter includes step-by-step how-to (although I don't know valuable you'll find it), the schematic, a pictorial wiring diagram showing the actual components and how they were laid out, adjustment and operating instructions.

This equipment used octal tubes and other components that can still be easily found in junk equipment. You'll even find some of these kits for sale at flea-markets and hamfests from time-to-



How to Become a RADIO AMATEUR 1930

HOW TO BECOME A RADIO AMATEUR (1930)

by the American Radio
Relay League
reprinted by Lindsay Publications

In 1930 thousands of people were not only fascinated by the arrival of broadcast radio, but by the magic long distance communication possible through short-waves. This simple booklet was intended to draft many of those people into the hobby of ham radio.

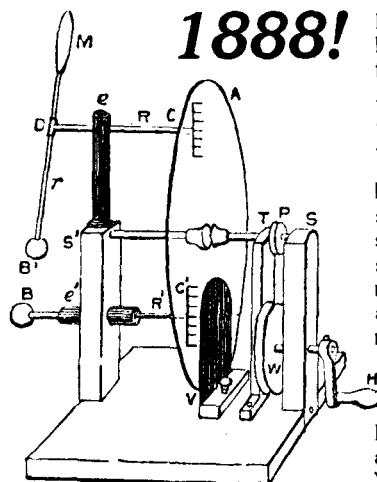
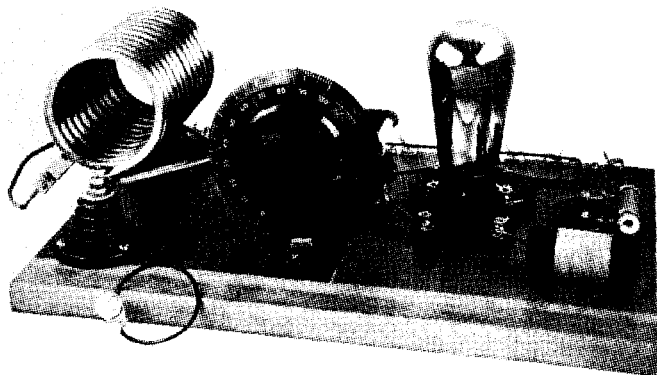
Here you'll discover the amateur bands as they then existed, how to learn Morse code, how to build a two-tube (UV-201-A) bread board regenerative receiver for the 80 meter band, an oscillating transmitter using a UX-210

Build a 1930 Ham Radio Station!

tube, an AC power supply, tips on setting up the radio station, and finally how to operate it.

Not only is this great nostalgia, it is also quite practical should you want to build a copy of the regenerative receiver. You may want to build a copy of the transmitter for display or occasional demonstration, but you probably wouldn't want to use it on the air.

Discover 1930 ham radio. Build early equipment. Lots of fun reading. Low cost. Get a copy. 8 1/2 x 11 booklet — 32 pages
Cat. no. 20226 \$2.95



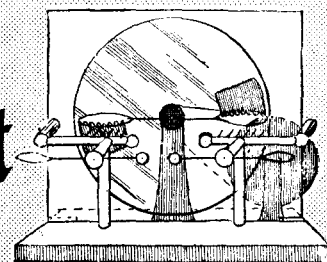
1888!

**ELECTRICAL
INSTRUMENT-MAKING
for Amateurs**
by S. R. Bottone
reprinted by
Lindsay Publications Inc

In 1888 when this volume first hit the bookstores, electrical instruments could be anything from simple Leyden Jar capacitors and static electricity machines to dynamos and telephones, as well as ammeters, voltmeter and galvanometers.

With this as your guide you can go back a hundred years and imagine what it must have been like to be experimenting right at the cutting edge of technology. You can build your own batteries

Electrical Instrument Making for Amateurs



from scratch, use them to run a shocking coil while you monitor the current draw with homemade meters!

You get basic information on materials, soldering, and working glass. Then you build pith ball and gold leaf electrosopes, a Coulomb torsion balance, and Volta's electrophorus static generator. You'll learn how to take a sheet of glass and cut a circle from it, drill a hole in the center and use it to

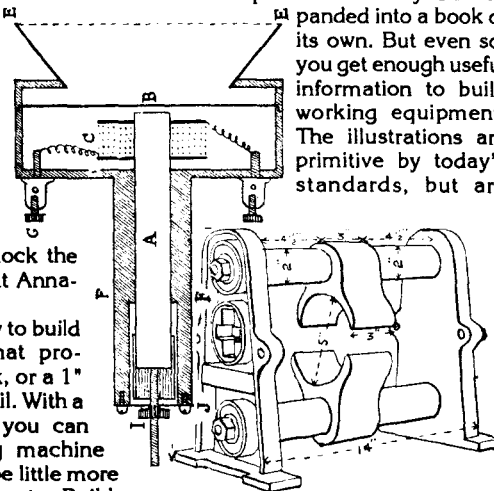
build Bertsch's high-voltage static generator, Carre's Dielectric machine, a Holtz machine, and a Wimshurst influence machine. Any one of these machines is powerful enough to shock the underwear off Aunt Annabelle!

You'll learn how to build a medical coil that produces a 1/2" spark, or a 1" spark induction coil. With a powerful magnet you can make a shocking machine which appears to be little more than a simple magneto. Build a uni-direction current machine (a motor), a dynamo, an ammeter, a voltmeter, a galvanometer, batteries, a single fluid cell, a double fluid cell, and using these two basic battery configurations how to create powerful batteries using chemicals from zinc chloride and sulphuric acid to sal ammoniac

and potassium dichromate which are more commonly known as the Daniell, Bunsen, Smee, Walker cells and others.

Then you get simple plans so that you can build a working electrical telephone, the newest rage a hundred years ago.

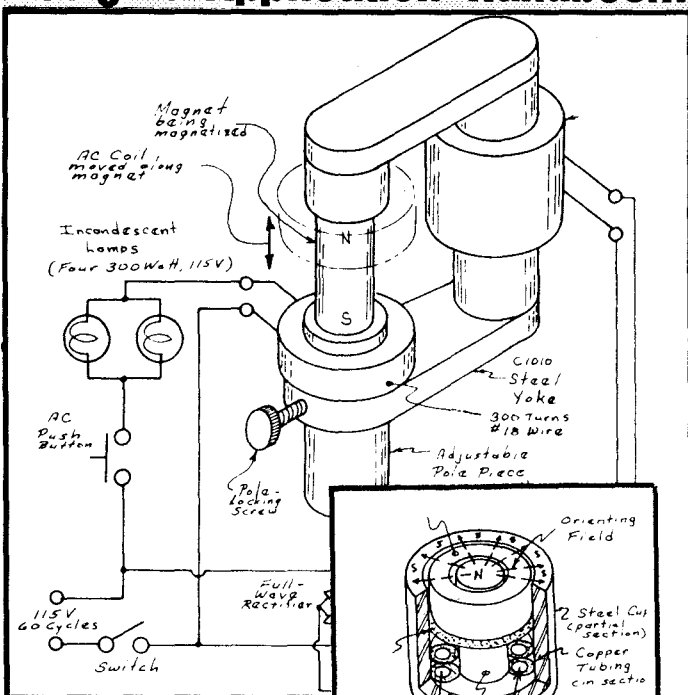
Obviously so many topics are covered in such a small book that the number pages devoted to each topic are necessarily limited. Any one topic could really be expanded into a book of its own. But even so, you get enough useful information to build working equipment. The illustrations are primitive by today's standards, but are



very informative nonetheless.

This is a fascinating book you're sure to enjoy. Lot's of valuable information at a price far below what you would have to pay for a now-rare original copy. Get a copy. Worth having. 5x7 paperback 183 pages
Cat. no. 4929 \$9.95

Permanent Magnet Design & Application Handbook!



PERMANENT MAGNET DESIGN & APPLICATION HANDBOOK

by Lester Moskowitz

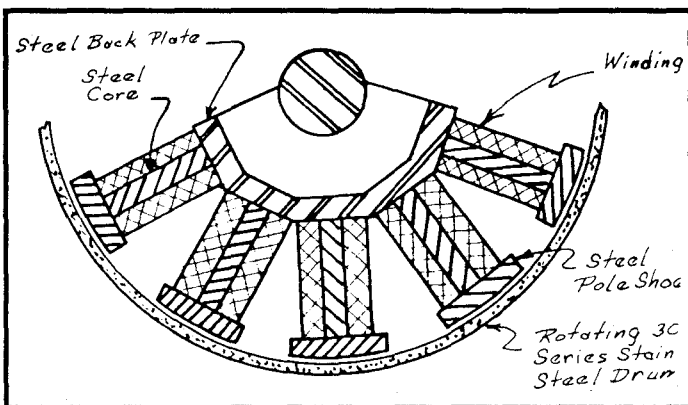
Back in print! For now at least... The best magnet book I've seen.

Opening this book gives you the feeling you've opened the lab notebook of a famous magnet scientist. It's loaded with drawings, diagrams, equations, notes, hints, tips, circuit diagrams and more.

Chapters include brief history of magnets, terms and definitions, classification of magnets and materials, basic manufacturing processes, fundamentals of magnetism, general design considerations, leakage and fringing, circuit effects, exact design methods, and on and on.

You get all kinds of information and making, testing and using magnets from a circuit diagram for a 100 joule impulse magnetizer to suggestions for use in magnetic drives, motors and magnetos, magnetic welding benches and much more.

Expensive! But the best book of its type I've ever seen. Just the right mix of theory and practical application. Rare information. If you think you'll ever need it, get it now. It went out of print once, and is being reprinted (probably only for a short time) by another small publisher. I'm glad to see it's back. 9x12 hardcover 443 pages heavily illustrated
Cat. no. 1149 \$65.00



VACUUM TUBES in Wireless Communication

Vacuum Tubes
in Wireless Communication
by Elmer E Bucher

In 1919 radio had proven itself in the just-ended First World War. Radio's future looked bright.

The author explained his purpose in writing this book:

"In preparing the text of this book, the author had two principal

objects in view: (1) to provide the Government and commercial wireless operator with a brief and simple explanation of the functioning of the circuits of the vacuum tube, (2) to lay before the experimenter and the practical operator the numerous circuits employed from time to time in the laboratory and in commercial practice.

Outside of its obvious commercial value, the perfected vacuum tube affords the experimenter a most fascinating field of research. This is well evidenced by the fact that a single bulb with associated tuning apparatus connected to a four wire aerial 200 feet in length permits wireless signals to be received over distances 2,500 to 4,000 miles in daylight, and up to 6,000 miles in darkness."

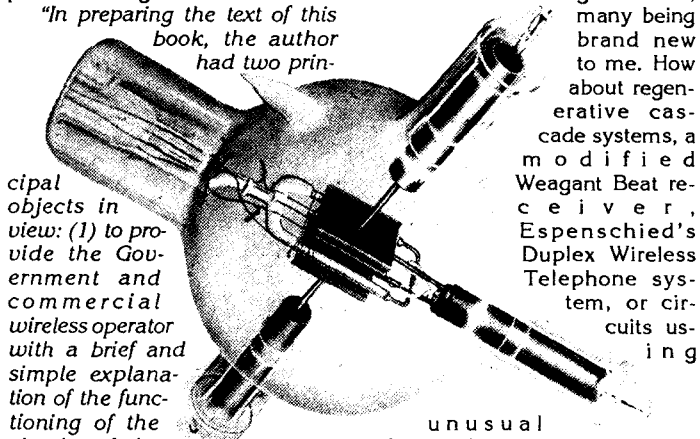
On the title page is another description that says it all.

"This volume shows over 140 different circuits for the practical use of Vacuum Tubes as Detectors, Radio or Audio Frequency Amplifiers, Regenerative Receivers, Beat Receivers, and Generators of Radio Frequency Currents.

The Two, Three and Four Element Oscillation Valves are described in detail together with the circuits used in daily practice. Cascade Amplifiers of the latest type for long distance reception are comprehensively

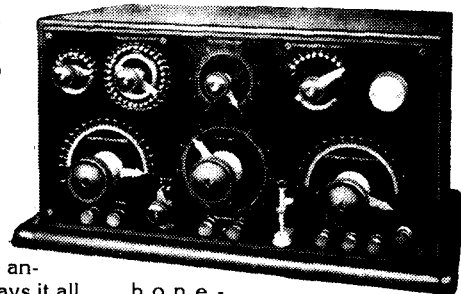
treated. Up-to-date circuits for long distance receptions are comprehensively treated..."

This almost all circuit diagrams, many being brand new to me. How about regenerative cascade systems, a modified Weagant Beat receiver, Espenschied's Duplex Wireless Telephone system, or circuits using

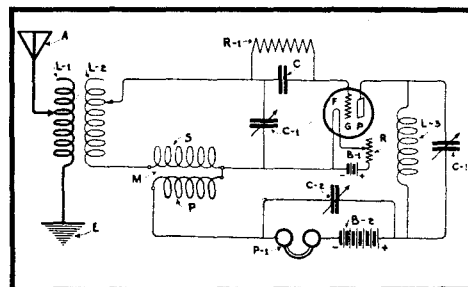


unusual tubes such as the Dynatron, the Pliodynatron, the Kenotron, or the Pliotron? Back then, this book described the cutting of technology as radio began to move away from spark gap code transmission to continuous wave methods using tubes.

This is a great collection of very unusual radio history — something you don't find everyday. 'Course I know a lot of



bone- heads who would be just as happy if they NEVER found it any day. But don't you be one of them. Consider this carefully. Its unusual. 5 1/2 x 8 1/2 paperback 208 pages
Cat. no. 20412 \$12.95



Three Remarkable Books by Gordon McComb!

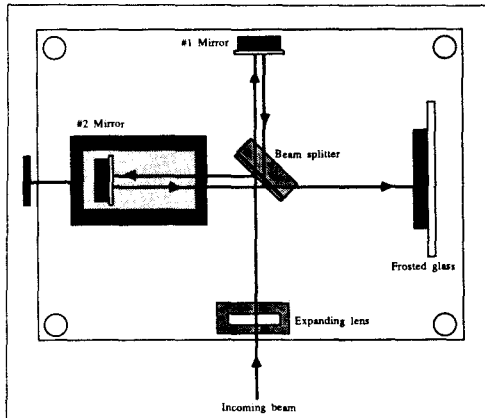
THE LASER COOKBOOK 88 Practical Projects by Gordon McComb

From the back cover: "The 88 laser-based projects presented here are geared toward the garage-shop tinkerer on a limited budget. Spanning a wide range of disciplines, the projects vary from experimenting with laser optics and constructing a laser optical bench to using lasers for light shows, gunnery practice, even beginning and advanced holography..."

There is even information on electronic construction techniques, how to buy laser components, when to buy surplus or new, and how to get what you really want! ..."

Chapters include build a He-Ne Laser Experimenter's System, Constructing an Optical Bench, Build a Michelson Interferometer, Advanced Holography, Experimenting with Laser Weapons Systems, and 19 others.

If you're wanting to experiment with lasers, this is the place to start - a whale of a lot of info in one book. Consider it carefully. 7x9 paperback 404 pages
Cat. no. 382 \$19.95



GADGETEER'S GOLDMINE! by Gordon McComb

Here, in a single book, are 55 off-the-wall devices you can build.

You get a Jacob's ladder, plasma sphere generator, induction coil, Van de Graaff generator, Tesla coil, Kirlian camera, piezo film speaker and amp, He-Ne laser pistol, variable-rate strobe light, radiation detector, universal receiver, superconductor disc, see-in-the-dark viewer, shape-memory alloy, espionage devices, robots, and more!

And this is good stuff! - plenty of detail: illustrations, diagrams, how-to text. The list of suppliers is quite impressive, too. This is a book every unorthodox experimenter should have in his library and never loan. Get one! 7 1/2 x 9 paperback 406 pages
Cat. no. 383 \$18.95

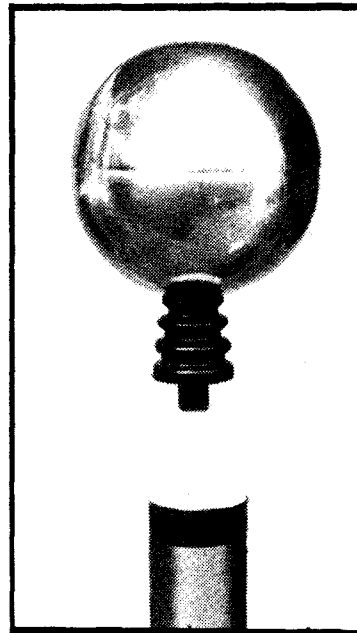
TIPS & TECHNIQUES for the Electronics Hobbyist by Gordon McComb

From the back cover: "Regardless of your level of experience, you'll be able to use this volume as source of ideas, a textbook on electronics techniques and procedures, or as a databook on electronics formulas, functions, and components. Each of the twenty chapters addresses a major aspect of electronics experimentation, such as how to

- buy, use, and get the most from your test equipment
- find and identify inexpensive but quality components
- read schematics and electronic symbols
- build and repair printed circuit boards
- use and understand electronic formulas
- ...and much more."

Chapters include setting up shop, filling the toolbox, electronics test equipment, buying parts, schematics and symbols, component identification, common IC's soldering tips, printed circuit board etching, wire wrapping, benchtop projects, and ten others!

Experiment with modern electronics. Let this handy book show you all the things you need to know. Valuable. Order one. 7 1/2 x 9 paperback 273 pages
Cat. no. 384 \$17.95



Electrical Recreations

William Peck's
ELECTRICAL RECREATIONS
reprinted by Lindsay Publications

Go back to 1860 and discover static electricity experiments designed to inform and entertain students studying physics in schools and academies.

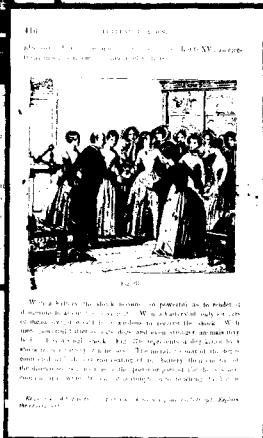
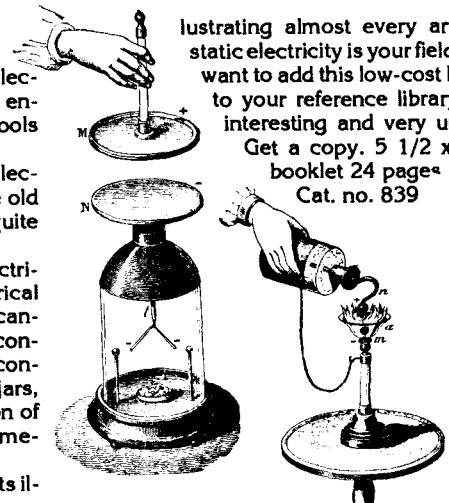
If you've collected other early static electricity works, you'll find some of this to be old hat. But other parts will be new and quite interesting.

Learn about the electrical chime, an electrified puppet, the electrical wheel, the electrical egg, the electrical square, the electrical cannon, the condenser of Epinus, using the condenser, slow and fast discharge of the condenser, the Leyden jar, a battery of Leyden jars, the condensing electrometer, electrocution of dogs!, heating power of electricity, and the mechanical effects of electricity.

You'll find fascinating old time wood cuts il-

lustrating almost every article. If static electricity is your field, you'll want to add this low-cost booklet to your reference library. Very interesting and very unusual.

Get a copy. 5 1/2 x 8 1/2 booklet 24 pages
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The Strange Books of Charles Fort

Four Mysterious Books in One!

The Complete Books of
CHARLES FORT

by Charles Fort

Strangel Very strangel A must book for anyone who researches unexplained phenomena. The dust jacket explains the book better than I can...

"Did beings from outer space visit earth in the past... are the various objects seen in the sky (flying saucers, in modern terminology) evidences of their visits?"

"What is the explanation of falls of frogs, falls of fishes, falls of seashells, which have been recorded from time to time? Are they explainable in terms of selective tornadoes, or are they evidences of a planetary mechanism that we do not know?"

"How can we answer reports of strange animals, disappearances of men from open sight, curious structures in the snow, talents like teleportation and telekinesis?"

"These are the 'damned,' by which the late Charles Fort meant all the wide range of mysteries that are ignored by orthodox science or explained away improperly."

"Charles Fort worked full time for twenty-seven years at the British Museum and the New York Public Library researching scientific journals, old periodicals, newspapers, and manuscript accounts to gather material on phenomena from the borderlands between science and fantasy. His researches appeared in four books, *The Book of the Damned* [1919], *New Lands* [1923], *Lo!* [1931], and *Wild Talents* [1932]."

"In these four volumes Fort gathered together, organized and commented on a wild host of phenomena: flying saucers seen in the sky before the invention of aircraft, flying wheels, strange noises in the sky; correlations between volcanic activity and atmospheric phenomena; falls of red snow; falls of frogs, fishes, worms, shells, jellies; finding of 'thunderbolts'; discrepancies in the schedules of comets, sightings on Mars and the moon; infra-Mercurian planets; inexplicable footprints in snowfields; flat earth phenomena, disruptions of gravity; poltergeist phenomena; stigmata; surviving fossil animals; the Jersey devil; Kaspar Hauser;

Frogs & Fishes Falling from the sky!

Flying Saucers in Victorian days!

Teleportation!

Telekinesis!

Mysterious Planets!

Unusual gravity!

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Living Fossils!

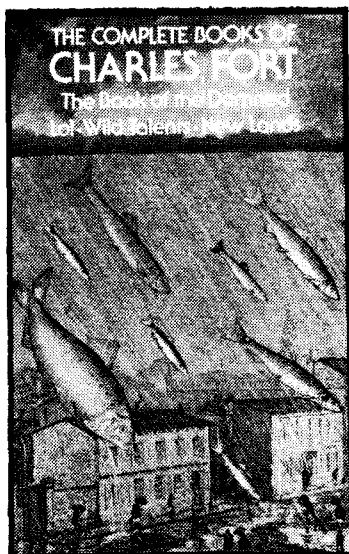
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spontaneous combustion....

"Charles Fort himself never really explained his phenomena... yet through the years his following has grown...."

In this three-inch-thick hardcover book you'll find more details on more strange, unexplained events than you'll find anywhere else. It's an incredible collection that should be part of any library on fringe science. If you specialize in the gray area at the outer edge of science, you must have a copy of this. Recommended.

No illustrations, but there is a complete and detailed index.

5 1/2 x 8 1/2 hardcover 1126 pages

Cat. no. 750

\$29.95

The Earth is HOLLOW!

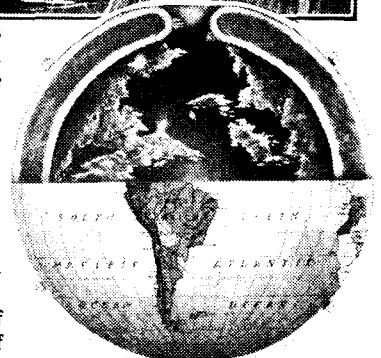
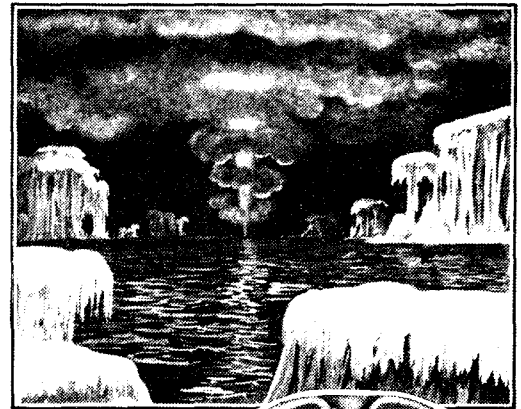
A Rare 1906 Hollow Earth Classic is Back!

THE
PHANTOM OF
THE POLES

by
William Reed
reprinted by
Lindsay
Publications

The earth is hollow! I don't think so, but a lot of people do. And this is a reprint of an early, rare classic text on the topic. Some people claim that there are holes at the ends of the earth that lead into the interior where there are continents and civilizations that are yet to be discovered. In fact, some people claim that NASA satellites have photographed these holes but that the photos have been suppressed. In this book Reed set out to explain unexpected and unexplained phenomena seen at the poles.

Chapters include flattening of the earth at the poles, length of polar nights, working of the compass, around the curve, mysteries of the polar regions, the water sky - what it is, the aurora, meteors or volcanic disturbances, finding of rock in and on ice, dust in the



what is in the interior of the earth.

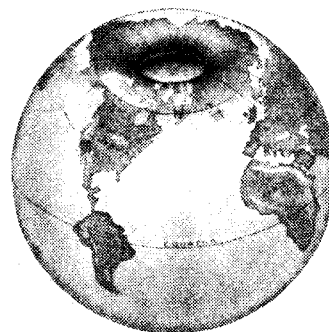
You'll find a variety of illustrations, but don't expect photographs. I can't recall anyone ever visiting the center of the hollow earth.

You'll find references to this rare 1906 classic mentioned in the few articles published on the hollow-earth theory in recent years. Now you can put a copy in your reference library at a fraction of the cost of an original assuming you can find one.

My screw-ball book printer thought at first that this was a book about a Polish super hero. I told him that my late Polish grandmother might have been offended by that comment. But on the other hand, she might have thought the book was her biography! Fortunately, my book-printer can print better than he can think....

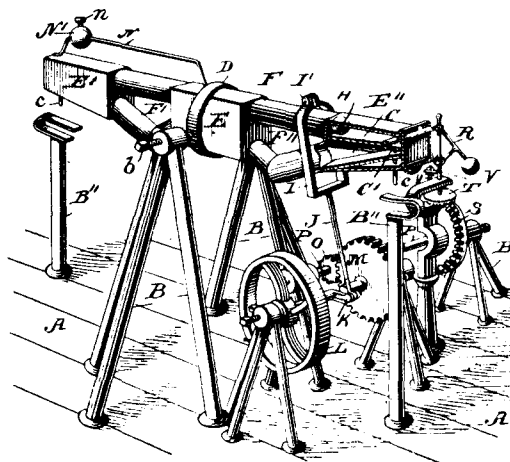
Rare book. Unusual. An essential part of that realm of unusual scientific theories and/or myths that never seem to die. Worth having? I think so. Consider it. 4 1/2 x 7 paperback 280 pages

Cat. no. 20609 \$11.95



arctic, open water at the farthest point north and south, why it is warmer near the poles, driftwood - whence it came, have others that Esquimos inhabited the arctic regions?, what produces colored snow in the arctic, where and how are icebergs formed, the tidal wave, clouds and fogs, arctic and antarctic winds, the centre of gravity, cannot reach the poles, and

FIFTY Perpetual Motion Mechanisms

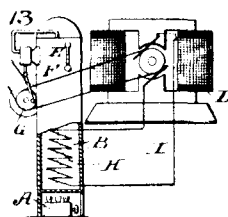


FIFTY PERPETUAL MOTION MECHANISMS

by Fred Dieterich
reprinted by Lindsay Publications

The author was a patent attorney at the turn of the century. I suppose that so many people considered themselves inventors and presented him with so many headaches that he wrote a book entitled "The Inventor's Universal Educator" covering the process of securing a patent. It sold for many years starting 1899.

One short section of his book covers perpetual motion inventions which are unpatentable. Dieterich, who was outraged by claims of



perpetual motion, presents drawings of 50 different mechanisms. No doubt, you've already seen a number of these, but others are unique, and all are interesting.

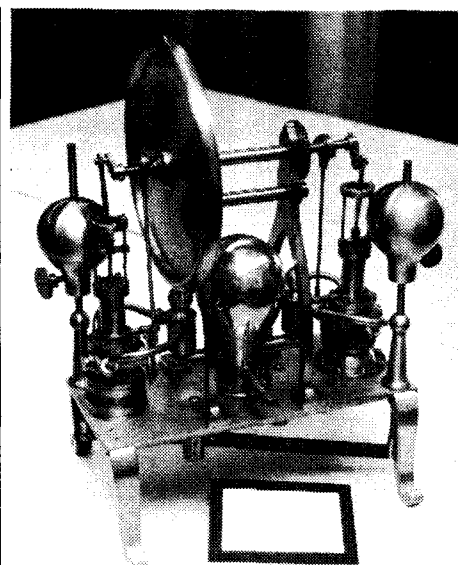
You'll see the Marquis of Worcester wheel, the Horace

Wickham machine, the 1868 device of Dr. Drasch of Austria, an electric device, the self-moving railway, the Orffyreus 1720 wheel, a complicated water screw, and others.

If you're into PM, you'll want to add this to your collection. Maybe you're trying to build a machine and want to avoid previous failures. Or you're a skeptic and want a good laugh. Whatever, the material is interesting and the price is low. Get a copy. You'll like it. 8 1/2 x 5 1/2 booklet 22 pages

Cat. no. 898

\$3.75



PERPETUAL MOTION HISTORY

PERPETUAL MOTION

The History of an Obsession

by Arthur Ord-Hume

People for centuries have attempted to build a machine that will produce more energy than it consumes. And they've all failed.

If you think you've invented a new type of perpetual motion machine, you had better read this book. Chances are, it has already been attempted.

For the rest of us, this book is interesting reading. There are some machines, that don't actually produce energy, but they run seemingly forever on a small amount of energy, like Singer's perpetual chime that was set up in 1840 and is still operating!

Learn about medieval machines, self-moving wheels, lodestones, electromagnetism, steam, capillary attraction, spongewheels, Cox's machine, the Redheffer device, the Keely motor, odd ideas about vaporization and liquefaction, the barring of

perpetual motion devices form the patent office (although the magnet motor sneaked in), rolling ball clocks, and more. You get lots of illustrations, and an excellent list of references for further reading.

Interesting book! Well written and researched. Excellently done. If nothing else, put one in your reference library. It's not all that expensive. 5 1/2 x 8 1/2 paperback 235 pages.

Cat. no. 510

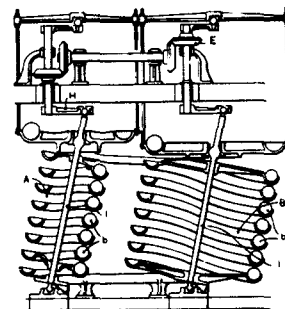
\$6.95

PERPETUAL MOTION MYSTERY

THE PERPETUAL MOTION MYSTERY

by R. A. Ford

Perpetual motion. Some people laugh at it. Others take it very seriously. Here's a serious look at these unusual systems.



First, you

get a reprint of the small and now-rare "Perpetual Motion Handbook Through Entropy Reversal" published in 1967 by I. R. Barrows. Then, you get his first (and last) four "Perpetual Motion Journals" published about the same time. Each is small but filled with letters patents, ideas, illustrations, and thought-provoking suggestions.

The author jumps into a discussion of why perpetual motion might be possible, pointing out unusual theories from the past, and pointing out possible defects in current theories.

Covered are kinetic gravitational theories of the 18th century, DesCarte's Vortex Theory, LeSage's Impact Theory of Gravity, and Brush's Wave Theory. Attempts at experimental confirmation of these theories are then provided.

Natural gravitational anomalies such as solar eclipse, bulging river surfaces, bore at sea, unusual rock movements, slowly falling hail are revealed. You'll learn about Robert Cook's inertial propulsion device and its relation to Newton's Law.

The last large section covers the Orffyreus wheel built in Germany centuries ago. The author believes it might have been the only real perpetual motion machine yet invented, the secret of which was lost. You'll learn about the inventor's life, his education, his wheels, his successes and failures, the tests, and more.

Last, the author, based on the material presented in earlier chapters suggests how a perpetual motion machine might be built.

You get a collection of strange, rarely seen stories and phenomena that might hold the key to perpetual motion, if, indeed, such a machine can be built.

This is not a construction manual, nor is it extremely complex. It's a notebook gathered over the years, one that should be interesting to believers and non-believers.

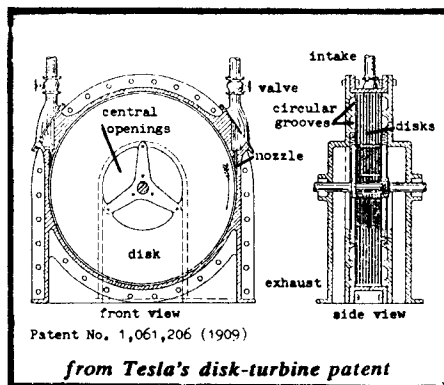
Consider it. You won't find anything quite like it on the market. Different. Unusual. Interesting reading. Get a copy.

5 1/2 x 8 1/2 paperback 196 pages

Cat. no. 4538

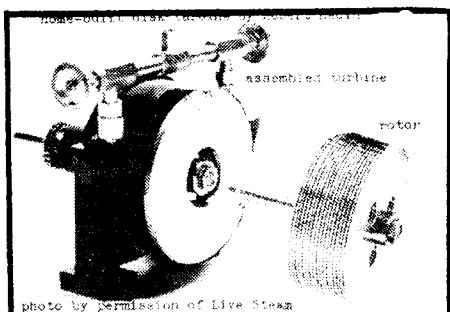
\$9.95

TESLA'S LOST Inventions!



TESLA: The Lost Inventions
by George Trinkaus

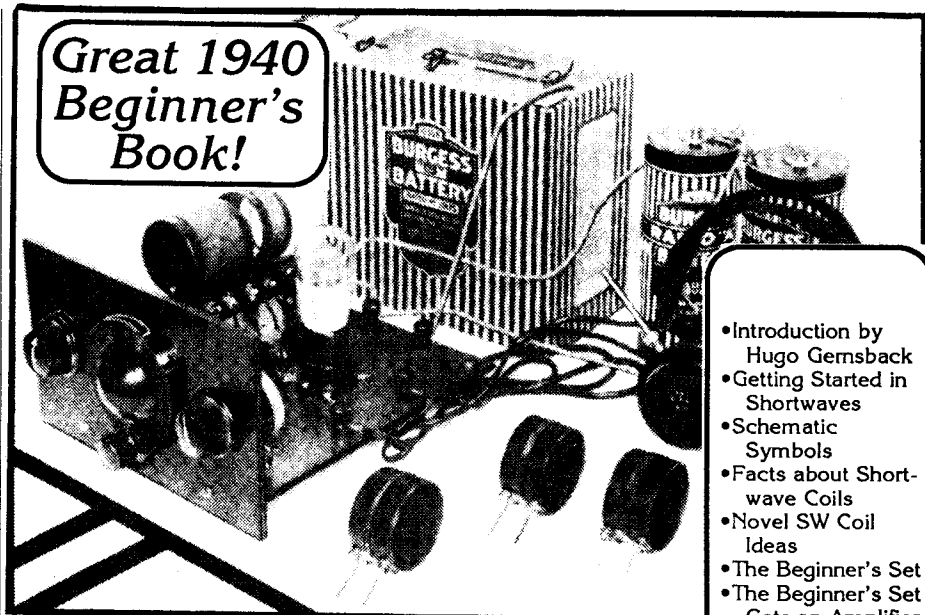
"Here are the suppressed inventions of Nikola Tesla all in one place rendered in clear English and in 42 illustrations. Tesla was famous at the turn of the century for inventing the alternating-current system still in use today. But his later inventions, documented in some 30 U.S. patents between 1890 and 1921, have never been utilized as Tesla intended despite their obvious potential for advancing in fundamental ways the technology of modern civilization. Among these lost inventions: the disk-turbine rotary engine, the tesla-coil electric energy magnifier, high-frequency lighting systems, the magnifying transmitter, wireless power, and the free-energy receiver." —from the front cover.



Like Trinkaus's other Tesla book, the only major criticism that can be leveled here is that the chapters are too short. On the other hand, even if each topic were expanded into a full-blown book, you would probably find Tesla so interesting that your curiosity would still not be satisfied.

Interesting, unusual information, especially if you're just beginning your study of Tesla. Fairly priced. 8 1/2 x 7 booklet 34 pages
Cat. no. 748 \$5.95

Great 1940
Beginner's
Book!



Shortwave Beginner's Book

**SHORTWAVE
BEGINNER'S BOOK**
by Radio & Television
Magazine
reprinted by Lindsay
Publications

The full title is "Short Wave Beginner's Book including a complete course of instruction in shortwave; details for making short-wave aeri-als; a complete beginner's set; coil winding data; operating kinks." And it's 36 pages of dynamite ideas from 1940.

Short Wave Beginner's Book was targeted for the raw beginner. It explains everything in detail, showing the reader not only the schematic but diagrams of what wire to hook where. Even templates are provided for drilling the chassis. Very little is left to the imagination.

True, the sets are not overly sophisticated, but they're a great place to start. For instance the beginner's set uses a single 30 vacuum tube with a 45 volt B battery. In the next chapter another 30 tube is added as an audio amplifier.

You get excellent discussions on topics such as coupling amplifier circuits, insulators

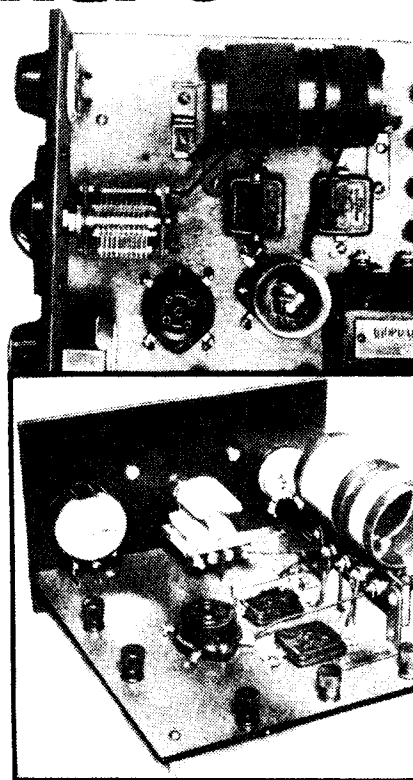
that can be used on shortwave antennas, and code practice oscillators. And everything is nicely illustrated.

Here's another fun old-time shortwave radio book you should have. And it's reasonably priced! It's another MUST for your old time radio book collection. Order a copy. 7x9 booklet 36 pages

Cat. no. 4961

\$4.95

- Introduction by Hugo Gernsback
- Getting Started in Shortwaves
- Schematic Symbols
- Facts about Short-wave Coils
- Novel SW Coil Ideas
- The Beginner's Set
- The Beginner's Set Gets an Amplifier
- Smoothing Up the Regeneration Control
- New Kinks for the SW set
- Which Regeneration Scheme?
- Tuning the Short Wave Receiver
- How to Make Worth-While Audio Amplifiers
- Short Wave Operating Hints
- Coupling the RF Stage to Detector
- Audio Amplifiers for SW Sets
- Methods of Coupling to Speakers
- Aerials for Short-Wave Receivers
- Good Antenna Design
- Some Things You Don't Know About Aerials
- Learning the Code
- Home-Made Antenna Coupling Condensers
- A Panel Mounting SW Coil Assembly
- A Meter-Kilocycle Conversion Chart



Tesla Coil Secrets!

TESLA COIL SECRETS

by R. A. Ford

Be the first on your block to blast your neighborhood with high voltage! Shock the socks off your friends and relatives! Zap those pesky cats digging in the garbage can! Make people think you really are building a Frankenstein monster in your basement!

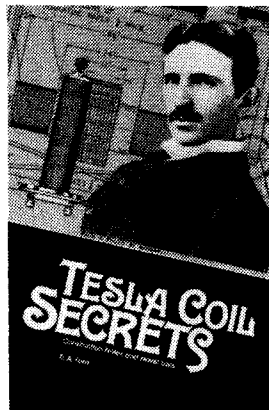
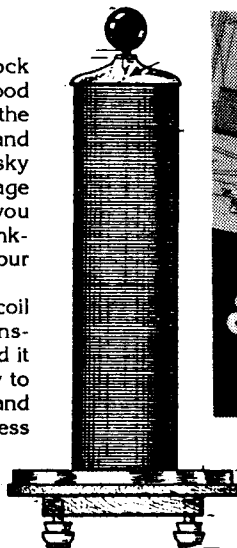
As you know, a Tesla coil is a high voltage transformer. Nikola Tesla used it at the turn of the century to generate lightning bolts and to investigate the wireless transmission of electrical power.

This fascinating book is not really a how-to-build book. Actually, an avid researcher who has built several coils and has accumulated articles, clippings, notes, and bits-and-pieces over the years has opened up his scrapbooks to us.

You'll see all the interesting hints, plans, and wiring diagrams gleaned from early magazines that ceased publication decades ago along with formulas, notes, and observations he believes are important for building powerful coils. Many of the old articles are so detailed that you can probably use them to build a powerful experimental coil. There are notes on one machine the could kick out five foot lightning bolts!

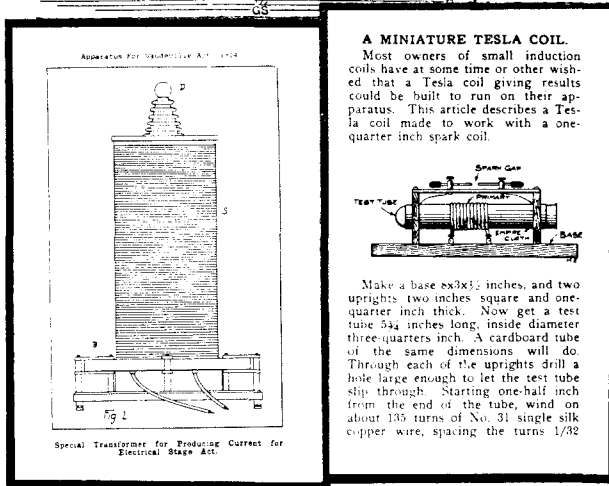
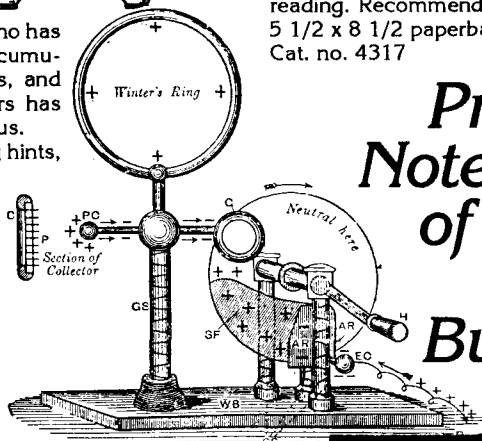
If you're really into Tesla coils, you may have seen a few of these clippings already. But I'll bet there are others you haven't seen. You'll get info on rotary spark gaps, anti-kick-back devices, Leyden jar capacitor construction, conical Tesla coils, Oudin coils, and suggestions on research into wireless power transmission, plant growth stimulation, medical uses, and more.

Many of the reprinted articles are fuzzy and a few hard to read. Most have been enlarged to bring out the construction details, and have been



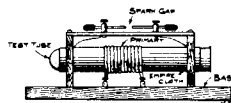
Tesla didn't have time to pursue or reveal. Rare info! Too bad the book isn't ten times bigger. Get a copy for the reference library if for no other reason. Interesting reading. Recommended!
5 1/2 x 8 1/2 paperback 74 pages
Cat. no. 4317 \$6.95

Private Notebook of Tesla Coil Builder



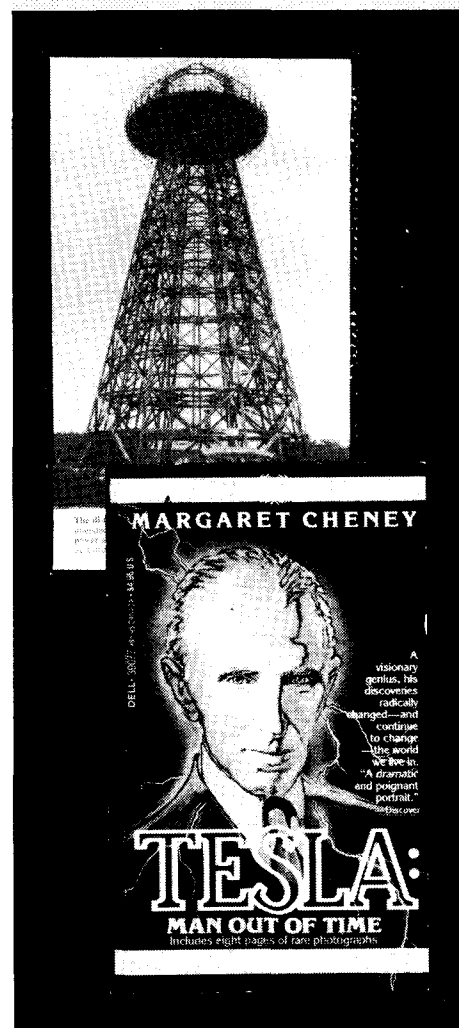
A MINIATURE TESLA COIL.

Most owners of small induction coils have at some time or other wished that a Tesla coil giving results could be built to run on their apparatus. This article describes a Tesla coil made to work with a one-quarter inch spark coil.



Make a base 3x3x1 1/2 inches, and two uprights two inches square and one-quarter inch thick. Now get a test tube 5 1/4 inches long, inside diameter three-quarters inch. A cardboard tube of the same dimensions will do. Through each of the uprights drill a hole large enough to let the test tube slip through. Starting one-half inch from the end of the tube, wind on about 135 turns of No. 31 single silk copper wire, spacing the turns 1/32

Who Was Nikola Tesla?



TESLA: MAN OUT OF TIME

by Margaret Cheney

"Flamboyant, eccentric, almost supernaturally gifted, had he been born today he would still be ahead of his time. Called a madman by some, a genius by others, and an enigma by nearly everyone, Nikola Tesla was perhaps the greatest inventor the world has ever known..."

"It was Tesla who harnessed the alternating electrical current that we use today... Tesla who actually invented radio... Tesla who invented fluorescent lighting and the incredible bladeless turbine. He introduced us to the fundamentals of robotics and computer and missile science, which continued to create and transform the future..."

There are many books about Tesla, some of them are garbage written by groupies who worship Tesla as a god. Here's a great factual biography that has gotten great reviews — the story of a wizard who was Edison's enemy, Mark Twain's friend, and J. P. Morgan's client. This is the real story. Excellent book at a reasonable price. Order a copy. 310 pages "mass" paperback a few photos

Cat. no. 717

\$5.95

Inventions, Researches & Writings of
NIKOLA TESLA
 by Thomas Commerford Martin
 reprinted by Lindsay Publications Inc

The greatest world's fair ever constructed was underway in Chicago in 1893. More electricity and more electric lights were used in the fair than in the entire city of Chicago. It was the electric age, and Edison was doing with commercial battle with Westinghouse and its star, Nikola Tesla.

In 1893, this volume, a comprehensive collection of Tesla's work to that point, was published. And although it is now quite rare, you can have a high quality reprint for a small fraction of what cost us to obtain an original copy.

Most people think of lightning generators when they think of Tesla, but that's a very narrow perspective. People should think of alternating current. Tesla created the power system used throughout the world today — one that operates at 50 and 60 cycles per second.

Tesla experimented with other frequencies, iron and air core transformers, as well as motors and generators. Tesla didn't just one day decide he was going to build his famous lightning bolt generator. It was but another step in a series of experiments that had begun years before. Here you get a complete record of this research up to 1893.

It's all here — the AC experiments and inventions that lead Tesla to experiment with ever higher voltages and frequencies, the neon tubes and fluorescent lights, unusual high frequency alternators and even magnet motors.

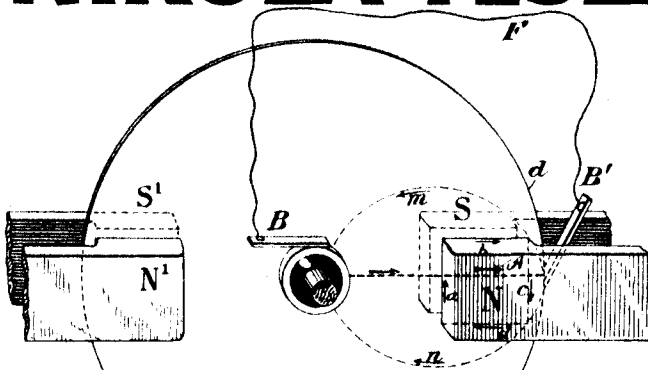
If you want to carry on Tesla's unusual research, you must walk in his footsteps. You must do your homework. Here in one volume is the early work that will help you get your mind in sync with his and perhaps suggest what he was thinking at the time, and give you ideas of where to take his experiments.

Every Tesla fan, every high voltage experimenter, and every electrical engineer should have a copy of this classic book. Just as much as Edison, Tesla created the world in which we live today. Now you can study the results of his research, attend his special exhibitions, and devour his lectures, with this single volume. Order a copy today! 5 1/2 x 8 1/2 paperback 496 pages
 Cat. no. 4902 \$16.95

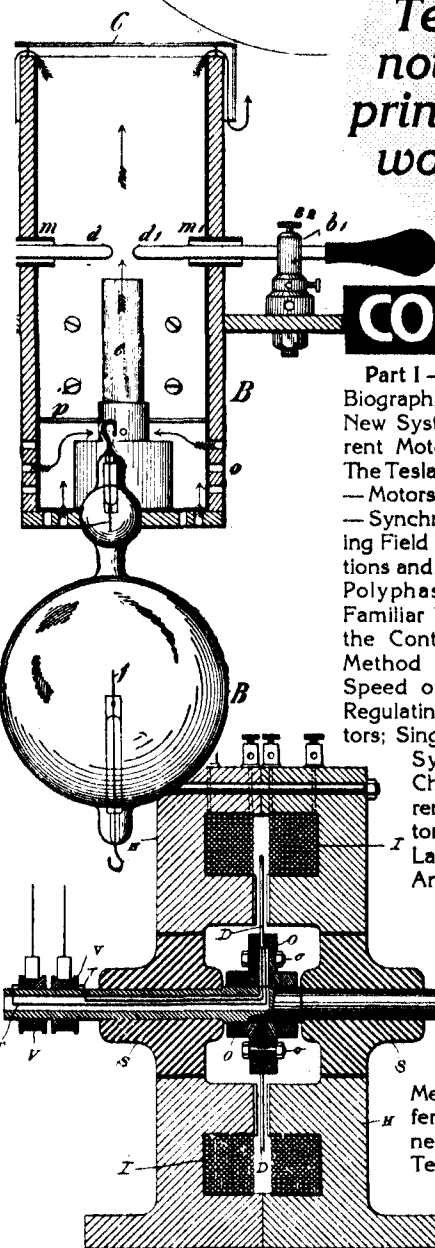
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 work to that
 date!**



CONTENTS

Part I — Polyphase Currents
 Biographical and Introductory; A New System of Alternating Current Motors and Transformers; The Tesla Rotating Magnetic Field — Motors with Closed Conductors — Synchronizing Motors — Rotating Field Transformers; Modifications and Expansions of the Tesla Polyphase Systems; Utilizing Familiar Types of Generators of the Continuous Current Type; Method of Obtaining Desired Speed of Motor or Generator; Regulating for Rotary Current Motors; Single Circuit, Self-Starting Synchronizing Motors; Change from Double Current to Single Current Motors; Motor with "Current Lag" Artificially Secured; Another Method of Transformation from a Torque to a Synchronizing Motor; "Magnetic Lag" Motor; Method of Obtaining Difference of Phase by Magnetic Shielding; Type of Tesla Single-Phase Motor; Motors with Circuits of Different Resistance; Motor

with Equal Magnetic Energies in Field and Armature; Motors with Coinciding Maxima of Magnetic Effect in Armature and Field; Motor Based on the Difference of Phase in the Magnetization of the Inner and Outer Parts of an Iron Core; Another Type of Tesla Induction Motor; Combinations of Synchronizing Motor and Torque Motor; Motor with a Condenser in the Armature Circuit; Motor with Condenser in One of the Field Circuits; Tesla Polyphase Transformer; A Constant Current Transformer with Magnetic Shield Between Coils of Primary and Secondary.

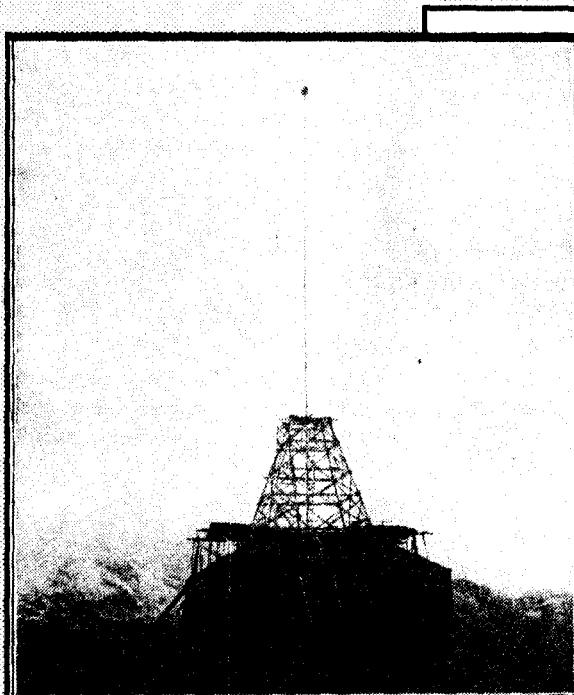
Part II — Tesla Effects with High Frequency and High Potential Currents
 Introductory — The Scope of the Tesla Lectures; The New York Lecture. Experiments with Alternate Currents of Very High Frequency, and Their Application to Methods of Artificial Illumination, May 20, 1891; The London Lecture. Experiments with Alternate Currents of High Potential and High Frequency, February 3, 1892; The Philadelphia and St. Louis Lecture. On Light and Other High Frequency Phenomena, February and March, 1893; Tesla Alternating Current Generators for High Frequency; Alternate Current Electrostatic Induction Apparatus; "Massage" with Currents of High Frequency; Electric Discharge in Vacuum Tubes.

Part III — Miscellaneous Inventions and Writings
 Method of Obtaining Direct from Alternating Currents; Condensers with Plates in Oil; Electrolytic Registering Meter; Thermo-Magnetic Motors and Pyro-Magnetic Generators; Anti-Sparking Dynamo Brush and Commutator; Auxiliary Brush Regulation of Direct Current Dynamos; Improvement in Dynamo and Motor Construction; Tesla Direct Current Arc Lighting System; Improvement in Unipolar Generators.

Part IV — Appendix on Early Phase Motors and the Tesla Oscillators
 Mr. Tesla's Personal Exhibit at the World's Fair; The Tesla Mechanical and Electrical Oscillators.

Tesla's Experiments with Alternate Currents!

Power transmission without wires: the London Lecture plus a 1904 magazine article on the Colorado Springs experiments! Rare book!



Experimental Laboratory, Colorado Springs.

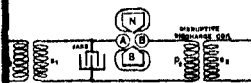
EXPERIMENTS WITH ALTERNATE CURRENTS of High Potential & High Frequency by Nikola Tesla

"A lecture delivered before the Institution of electrical engineers, London, by Nikola Tesla with an appendix by the same author on the transmission of electric energy without wire, reviewing his recent work, and presenting illustrations from the photographs never before published".

Quite a title! Quite a book! There's so much written and published about Tesla (and too much of it is pure garbage), that it is refreshing to have the inventor himself explain his experiments, theories, and plans. It's all here, every page from the original 1904 book — complete with unusual illustrations showing disruptive discharge coils, improved discharger and magnet, luminous discs, single wire and no wire motor, unusual electric lights for use with the high-frequency AC that is generated by the Tesla coil, and much more.

The last fourteen pages of the book is a reprint of Tesla's article from the March 5, 1904 issue of "Electrical World and Engineer" complete with photographs of the experimental apparatus at Colorado Springs and Long Island built to test the transmission of electrical power without wires.

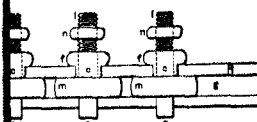
ection indicated diagrammatically in Fig. 3, the currents forming the arc are much more the magnetic field exercises a greater influence of the magnet permits, however, of the ed by a vacuum tube, but I have encountered



DISCHARGE WITH LOW-FREQUENCY ALTERNATE AND IMPROVED DISCHARGER.

Difficulties in working with an exhausted

tion of discharger used in these and similar indicated in Figs. 6 and 7. It consists of a pieces c c (Fig. 6), each of which comprises



DISCHARGER WITH MULTIPLE GAPS.

the portion m with an extension e below— used to fasten the piece in a lathe when discharging surface—and a column above, of a knurled flange f surmounted by a carrying a nut n, by means of which a

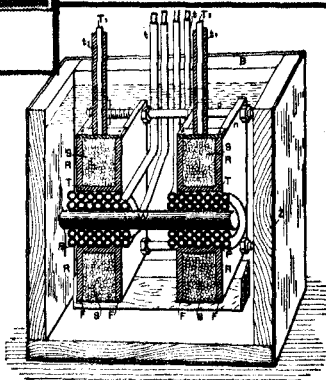


FIG. 3.—DISRUPTIVE DISCHARGE COIL.

coil and other apparatus used in the experiments with the disruptive discharge this evening.

It is contained in a box B (Fig. 8) of thick boards of hard wood, covered on the outside with zinc sheet Z, which is

Anyone who studies Tesla, builds his coils, or wants to perfect the inventions that Tesla didn't have time to finish should have a copy of this book. The writings of Tesla himself should be the cornerstone of any Tesla library, and here is your chance to get your own copy of this now-rare book. Interesting reading. Historically important. Get a copy.

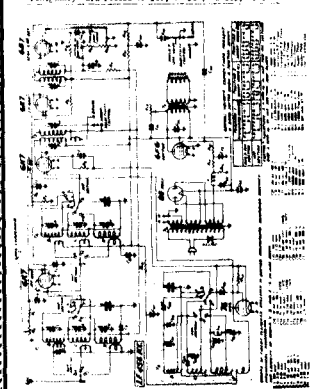
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Old Radio Diagrams!

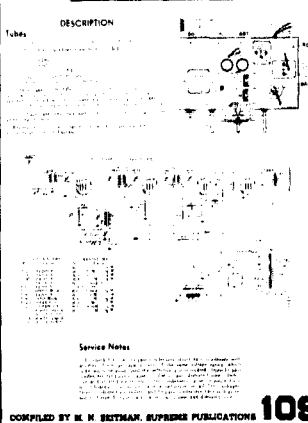
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



108

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Compiled by M. N. Beitman, SUPREME PUBLICATIONS



109

Most Often Needed 1926-1938 RADIO DIAGRAMS

and Servicing Information compiled by M. N. Beitman

Reprinted from out of the past is this great collection of wiring diagrams and service tips on most of the radios likely to be encountered by a radio serviceman in 1938.

You get not only the circuit diagram but in many cases parts numbers, voltage measurements at critical points, chassis drawings, alignment specs for superheterodynes, and more.

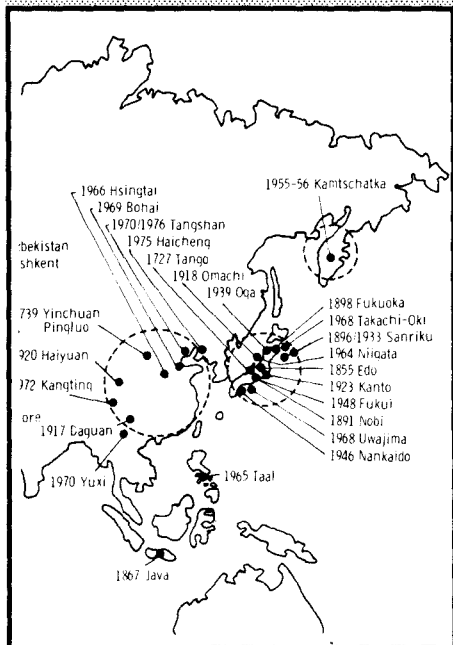
You'll find mostly diagrams for superhets, but there are a few regens from the "old days". Many receivers have shortwave bands. And although I consider myself at least somewhat knowledgeable about old radio technology there are tube numbers used here that I've never even heard of!

If you collect radios or like to build old sets using old parts, this is for you. You'll find everything from Atwater-Kents to Zenith radios listed. A valuable reference. Good stuff. Consider it carefully. 8 1/2 x 11 paperback 240 pages

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WHEN SNAKES AWAKE!



WHEN THE SNAKES AWAKE Animals & Earthquake Prediction by Helmut Tributsch

From the back cover: "Two days before an earthquake struck Helice, Greece, in 373 BC, snakes, weasels, and worms deserted the city. Minutes before the Naples quake of 1805, oxen, sheep, dogs, and geese cried out in unison. A herd of horses tore loose and ran off in panic just prior to the San Francisco earthquake of 1906.

Helmut Tributsch, Professor of Physical Chemistry at the Free University of Berlin, visited his native village of Friuli shortly after it had been devastated by an earthquake in 1976. He was intrigued by the stories told by his old friends about their animals' strange behavior in the hours before the quake. This experience started Tributsch on a search through ancient and modern literature for stories relating animal behavior and the appearance of such phenomena as luminosity, clouded springs, and strange fogs to the onset of earthquakes. This book summarizes his findings and presents a plausible explanation for them. Tributsch urges Western scientists to follow the lead of their Chinese colleagues and learn to use these signs as a possible key to the prediction of natural disasters."

This is really an interesting book published by MIT covering 78 earthquakes from 373 BC to 1979 and the unusual phenomena that accompanied them. Not only is it interesting reading, but researches into the fringes of science will find the tables in the appendices quite useful.

Unusual. Reliable. I think you'll like it. 6x9 paperback 248 pages
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HIGH FREQUENCY APPARATUS

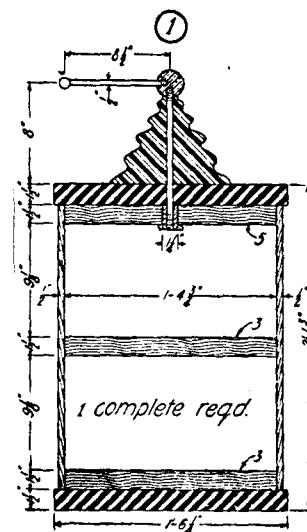
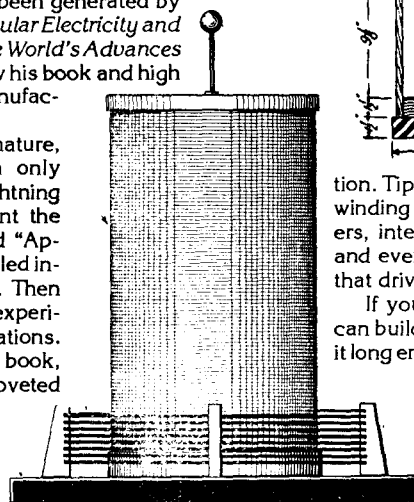
Classic High Voltage
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High Frequency Apparatus
by Thomas Stanley Curtis
reprinted by Lindsay Publications

By 1916 so much interest in induction, Tesla and Oudin coils had been generated by *Electrician & Mechanic*, *Popular Electricity* and *Modern Mechanics*, and *The World's Advances* magazines, that Curtis knew his book and high voltage equipment he manufactured would be a hit.

Because of their very nature, magazines could publish only brief articles on these lightning bolt generators. Curtis went the other extreme, and packed "Apparatus" with as much detailed information as he could find. Then he added suggestions for experiments and dozens of illustrations. The result is now a classic book, and original copies are so coveted that they're difficult to find.

You get wall-to-wall
how-to on coil construc-



tion. Tips on calculating windings, winding coils, making transformers, interrupters and spark gaps, and even the power transformers that drive the spark gap.

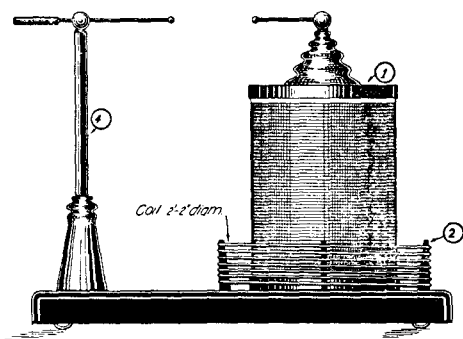
If you want to die young, you can build an X-ray apparatus. Use it long enough, and you and every-

one in your apartment building will glow in the dark!

Build a grid and see for yourself if high frequency current really

does affect plant growth. Build yourself a large coil that produces 50" lightning bolts, give lectures, and make people think you are a genuine made scientist. (Bring your mother-in-law along. They might mistake her for Frankenstein....)

Great book. And absolutely **MUST HAVE** book for the Tesla coil experimenters. Get a copy for your high-voltage library. Quality. Order a copy today. 5 1/2 x 8 1/2 paper 247 pages well illustrated
Cat. no. 20030 \$11.95

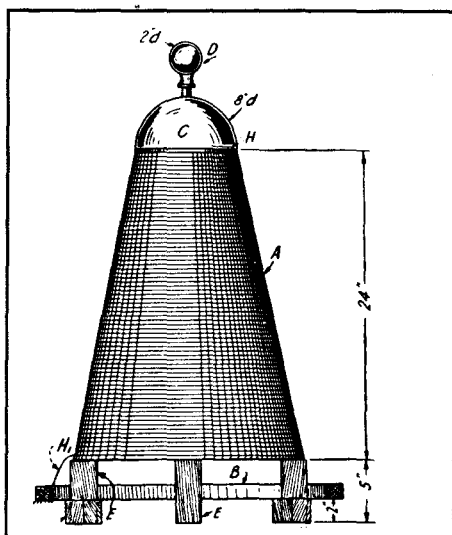


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- 8 Kicking Coil Apparatus
- 9 One-Half Killowatt Transformer Outfit
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- 18 Construction of Large High Frequency Apparatus
- 19 Large Tesla and Oudin Coils for the Stage
- 20 Construction of a Welding Transformer
- 21 Hints for the Electrical Entertainer
- Appendix Parts and Materials - How Much They Cost and Where to Get Them



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 How I Telegraph Pictures
 How to Use High Frequency Currents in the
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The Very
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ELECTRICAL EXPERIMENTER

The Very Best From
 THE ELECTRICAL
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anthology by
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You can go back to read the very
 best articles from one of the earliest
 hobbyist electronics magazines pub-
 lished. Gernsback's Electrical Experi-
 menter was filled with basic informa-
 tion, ads for early equipment, and most
 importantly how-to projects designed to
 be built from the most primitive
 materials.

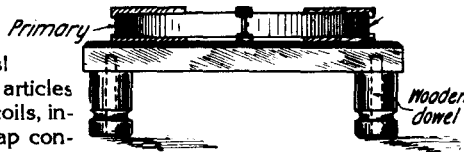
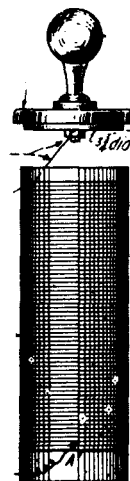
Readers learned how to build un-
 usual crystal set receivers with unusual
 detectors, high power wireless sets,
 and all the equipment that went into
 their construction. Today, you buy
 electronic equipment,
 put batteries in it, and
 turn it on. Back then
 you built your batteries!

You'll find how-to articles
 on high voltage Tesla coils, in-
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 struction, batteries, detectors,
 water power systems,
 selenium cells for ex-
 perimenting with
 primitive television
 systems, and more.

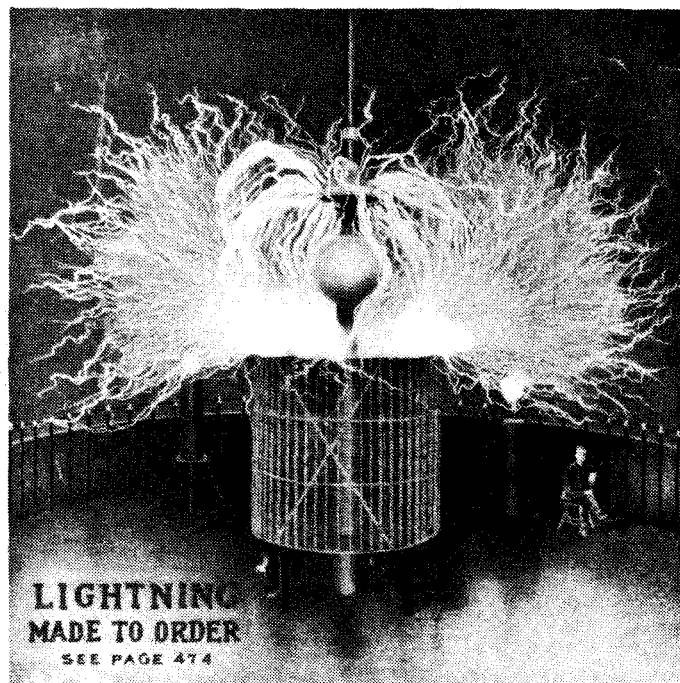
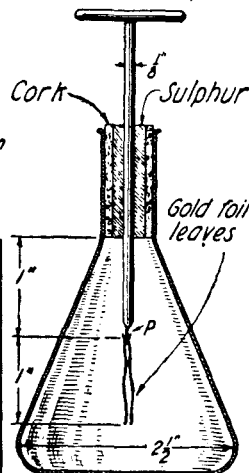
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 today. Many articles
 that cover the basics
 of electricity were
 omitted because you
 can find comparable
 material in modern
 magazines. Some
 plans were omitted
 because they were
 not unusual enough,
 such as motor and
 dynamo plans. You
 can find such plans in
 many old books.

What you will find
 is solid, interesting
 and useful informa-
 tion. Be careful,



You should know that most of the photo-
 graphs in this book are not of the best
 quality. Poor originals, yellowed paper,
 oversized pages have combined to make
 the photographs "muddy". The drawings
 are very sharp, and most type is quite
 readable, but the photos leave something to
 be desired. All we can say is that we did the
 best job we could. See what you think.



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1916-1917

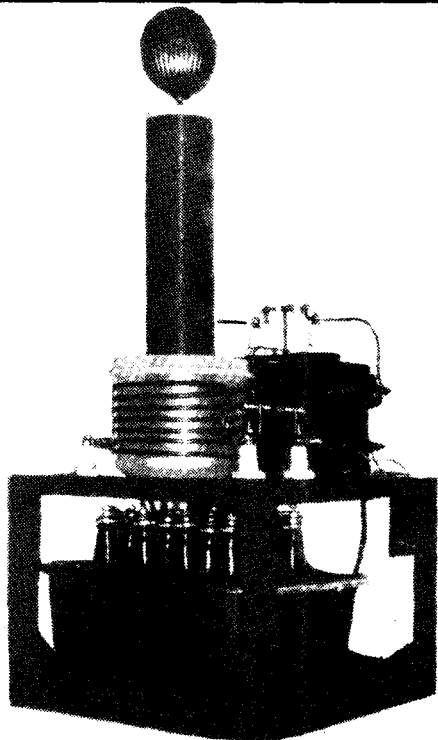
though! Some of this info is downright
 dangerous. You can get yourself elec-
 trocuted. You can give you and your
 neighbors cancer if you build and
 operate an X-Ray machine. Be very
 careful.

This is a great collection of rare ma-
 terial — something you should have in
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Build a TESLA COIL!



TESLA COIL
by George Trinka

Here's another Tesla coil book. It's a bit expensive for what you get, and much of it is a repeat, but there are some bits and pieces that I haven't seen.

You get a brief overview of Tesla, his career and his coil. Then you get instructions on building a good sized coil using a neon transformer and a spark gap to drive the primary. The detail is not great but is probably adequate.

You get brief discussions and details on capacitors, glass-and-foil capacitors, oil capacitors, salt-water capacitors, series and rotary spark gaps, a schematic for a 6L6 vacuum tube driven coil, construction notes, hazards, Tesla lighting, ozone disinfecter, and magnifying transmitter. All this in 21 pages!

Obviously, the booklet does not go into great detail, but there are ideas and clues here that you might not have thought of yet that might be worth the price and then some. You'll have to decide. Consider it carefully. 7 x 8 1/2 booklet 21 pages

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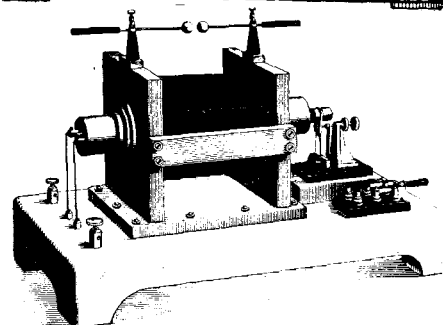
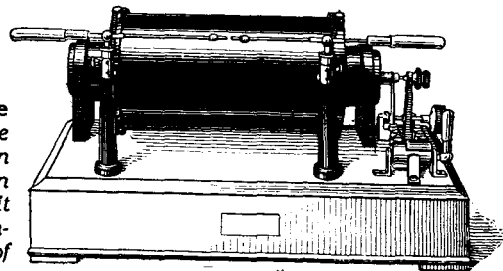
The Design & Construction of INDUCTION COILS

by A. Frederick Collins

Inside the cover of this 1908 classic is the author's statement: "For over fifty years the induction coil has held a preeminent place in the experimental laboratory for the production of high potential [high voltage] currents, but it did not become a commercial piece of apparatus until Roentgen announced his discovery of the X-rays in 1890..."

The art of coil making has been developed to a remarkable degree, [but] the actual processes of construction... have not been hitherto available...

The present work treats of eight different sizes of coils, varying from one giving 1/2-inch sparks to a large one giving 12-inch sparks. These various sized coils are included in three specific designs, and I have tried to tell in easily comprehensible language each process in sequence, together with the dimensions of each part down to the smallest screw...

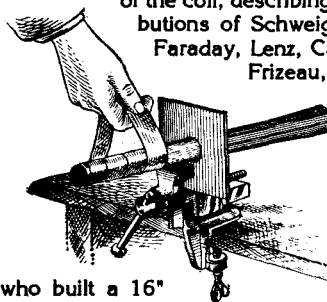


Design and Construction of INDUCTION COILS

Much of the matter in this book has never been published before, as, for instance the vacuum drying and impregnating processes, the making of adjustable mica condensers, the construction of interlocking reversing switches, the set of complete wiring diagrams, etc...."

Here you get one of the best books I've ever seen on their construction.

The first chapter starts out with the history of the coil, describing the contributions of Schweigger, Davy, Faraday, Lenz, Callan, Neef, Frizeau, Ruhmkorff



(who built a 16" spark coil), Tesla (and his mercury turbine interrupter), and others.

The other nineteen chapters delve into the theory of the coil and the action of each of its components, design of spark coil cores, choosing interrupters, details of condensor design and size, and more. Wire is discussed along with its cutting, straightening, annealing, the making of the paper tube, bundling and taping wires for large cores, and more.

Detailed discussions reveal the advantages of silk versus cotton-covered magnet wire, mounting the spool in the lathe, winding the primary, making a winding jig, winding the primary by hand, insulating the primary, the intricacies of winding the high-voltage second-

dary including details of a special winding machine, the impregnation of insulation waxes, the winding of helical secondaries, construction of aperture insulating rings, and more.

You'll learn how to dip the coil and bake it, build a vacuum apparatus to impregnate the apparatus, to dry the insulation, machine the parts for a simple spring interrupter, assemble the parts, mount the finished device, and more.

1908 Classic!

You'll learn about making tinfoil and paper condensers, adjustable mica condensers, reversing switches, and much more.

You get wiring diagrams for various coils, final assembly details, sources of direct current including dry cells, plunge batteries, chloride accumulators, and more.

This is a really a great book. You get more useful data in one place on building coils than you'll usually find in a dozen other books. Tesla coils are fun and fascinating, but so is the induction coil. Build one. Experiment. Have fun. Show your friends. Brag about it. Get a copy of this! Highly recommended! 5 1/2 x 8 1/2 paperback 272 pages - well illustrated Cat. no. 20404 \$12.95

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FADS & FALLACIES In the Name of Science by Martin Gardner

If you find "Fringe Science" impossible to believe, you'll find this book right down your alley. Gardner presents his views on "the curious theories of modern pseudoscientists and the strange, amusing and alarming cults that surround them. A study in human gullibility."

Gardner tears apart Symmes and his hollow earth theory, Velikovsky and wandering planets, the multiple moon theories of Horbiger & Bellamy, Charles Fort and the Fortean society, dowsing and other strange methods of finding natural resources, naturopathy, iridagnosis, zone therapy, food fads, orgone sex energy by William Reich, L. Ron Hubbard and dianetics, Korzybski and his General Semantics, Atlantis, flying saucers, and Bridey Murphy.

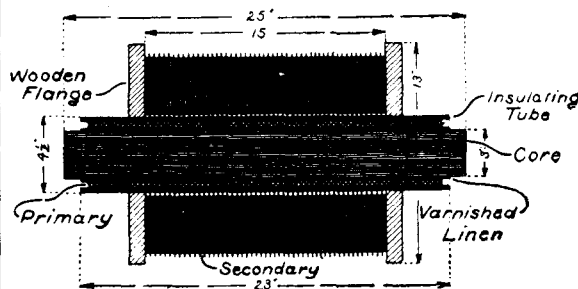
Gardner shoots them down, and many of them deserve it. But whether you agree with Gardner or not is immaterial. Here, you'll read about many strange ideas for the first time. You can read Gardner's point of view and then do your own research and decide whether you want to agree with him. What I especially like is the appendix that lists many unusual articles and books along with fascinating footnotes.

In other words, Gardner may attack something you really believe in, but in doing so might very well provide you with new directions for your own investigations.

No matter what side of the fence you're on, you'll enjoy this. Wall-to-wall unusual material. A lot of interesting book for the money. You can't afford NOT to have a copy. 5 1/2 x 8 1/2 paperback 363 pages

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High Power Wireless Equipment!

HIGH POWER WIRELESS EQUIPMENT

by Alfred Morgan

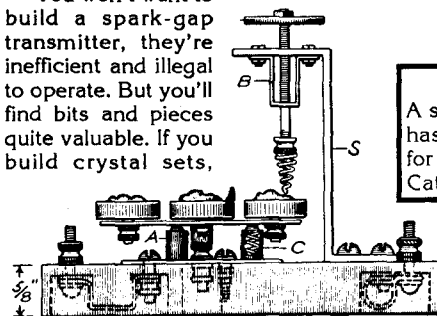
reprinted from

Popular Electricity Magazine 1910-11

If you wanted to try your hand at the newest 1910 electrical craze of transmitting telegraphy without wires, you had to build your equipment. The few pieces of equipment available commercially would probably have been way beyond your pocket book.

Here, in a series of fifteen installments, Alfred Morgan provided his readers with complete, detailed, dimensioned directions for building everything from the key to the aerial, from the induction coil and spark gap, to the helical transmitting coils. As a slice of early radio history this is fascinating reading.

You won't want to build a spark-gap transmitter, they're inefficient and illegal to operate. But you'll find bits and pieces quite valuable. If you build crystal sets,



you'll find the detectors very valuable.

If you like to build high voltage equipment, you'll find the induction coil, spark gaps, condenser and other plans useful. Early transmitters were essentially Tesla coils turned off and on with a key. A later chapter actually describes Tesla and the work he did, how to build one of his coils, how to use his equipment in wireless telegraphy.

And you'll find a chapter loaded with hints and kinks on everything from building condensers and using a coherer detector to how enamel wire and make a variometer.

This is all practical hands-on early radio and high-voltage electricity reprinted from the original hard-to-

CONTENTS:

- Aerials
- Aerial Switch & Induction Coil
- Induction Coil Secondary; Key
- Independent Adjustable Interrupter
- Oscillation Condenser
- Transmitting Helix
- Hot Wire Ammeter
- Two KW Closed Core Transformer
- Two KW Transformer Cont'd
- Detectors
- Detectors Cont'd
- Potentiometer; Fixed Condenser
- Loose Coupled Tuning Coil
- Variable Condenser
- Directions for Operating
- Tesla and His Wireless Age
- Construction of Tesla High-Frequency Apparatus
- High Frequency Apparatus for a Wireless Set
- Hints and Kinks

Tesla Equipment, Crystal Detectors, Rare Radio Equipment from 1910-11! Great How-To!

find magazines. Think about the possibilities. It might be fun to build an old wireless station just to show people today how it was done before semiconductors. No matter what your angle or interest is, you'll find this detailed how-to to be fascinating. Excellent rare, early information! Order a copy of this. It's worth having.

5 1/2 x 8 1/2 paperback 99 pages

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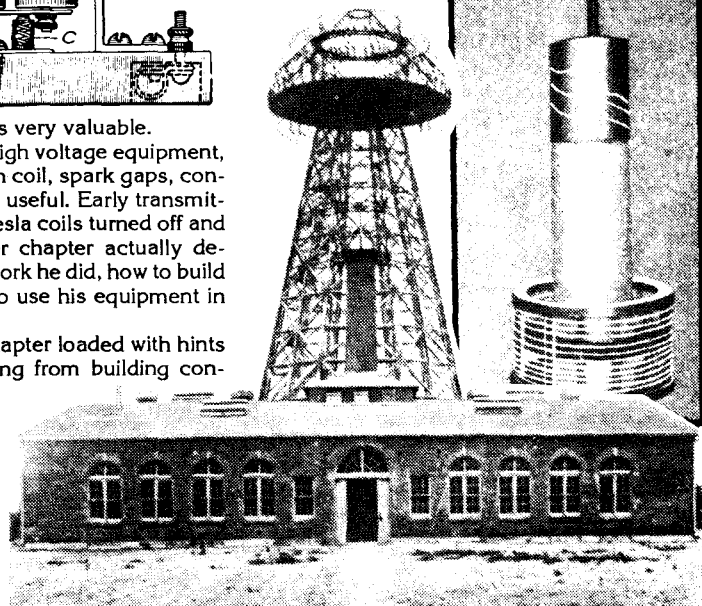
\$9.95

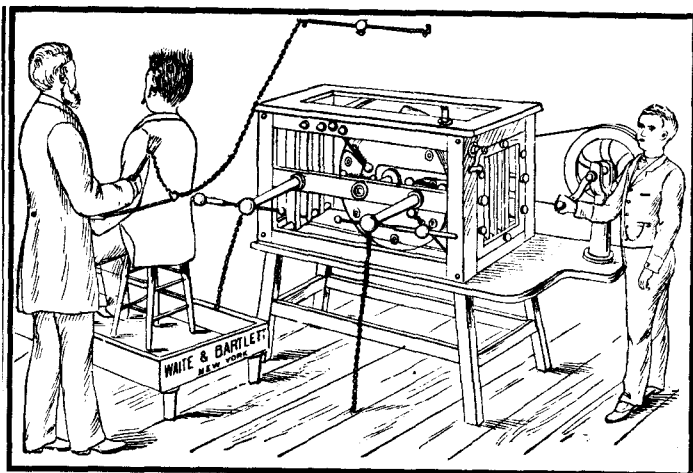
HARDCOVER EDITION

A small portion of the print run has been beautifully hardbound for libraries and collectors.

Cat. no. 4970

\$15.95





Practical Electricity in Medicine & Surgery

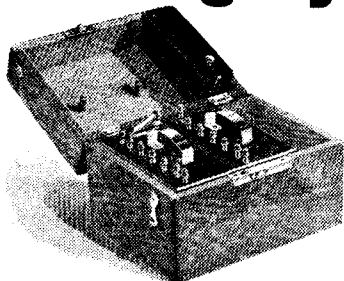
PRACTICAL ELECTRICITY
in Medicine and Surgery
by G. W. Overall, MD
reprinted by Lindsay Publications Inc

I'm not sure I can believe what I read in this book. Overall wants you to believe that electricity can cure everything from lead poisoning to constipation. (Of course, over the years I have gotten the — shocked out of me more than once.)

If you believe in electro-therapy, that's your business. I don't. But I do like this as an early handbook on electrical machines, the excitement they caused, and the hopes that people had that electricity would solve the world's ills, if not their own.

You'll find this to be a reprint of the rare first 1890 edition published in Memphis TN. It's broken into four parts which contain chapters covering the galvanic cell, galvanic current, Faradic current, the effect of these currents, electro-diagnosis, modes of application, the electric cabinet vapor bath, the electric tub bath, treatment of special diseases of the brain, paralysis, rheumatism, chorea, and so on. Part four covers electrolysis, organic diseases of women, electro-cautery, batteries, electrodes, and so on.

What I particularly like are the first few pages that describe and show static machines and their use, as well as galvanic battery machines, and so on. Later in the book are unusual medical electrodes that look like something out of a Frankenstein movie.

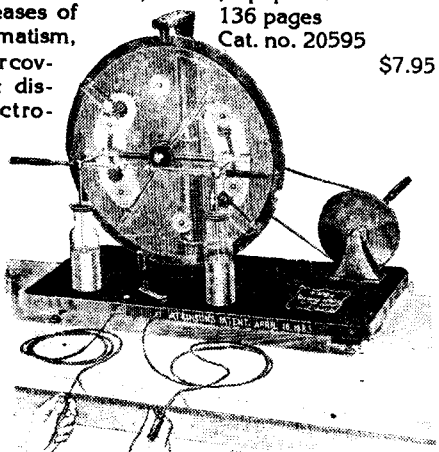


Again, I don't believe the info in the back half of book. In fact, it might be downright dangerous. But this IS a rare book that gives you a glimpse into early ideas about electricity and its use in medicine.

Consider this book carefully. I think it's unusual, and worth having. (After all, I don't go to the expense and trouble of reprinting books that I feel are NOT worth having. I may be crazy, but not stupid! Yes, I know. People would debate that too.) Maybe I can use this as a guide to build equipment to deal with my loonie in-laws. Maybe you can, too. Rare, interesting book. Order a copy.

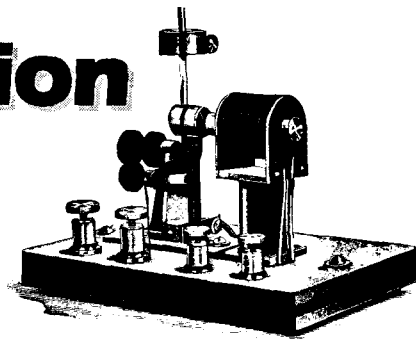
5 1/2 x 8 1/2 paperback
136 pages
Cat. no. 20595

\$7.95



Induction Coils!

How to Make, Use and Repair Them...



INDUCTION COILS
How to Make, Use, and Repair Them
by H. S. Norrie
reprinted by
Lindsay Publications Inc

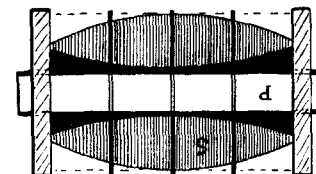
Although this classic work first appeared in 1896, this fourth edition was printed in 1907. And it's just that—a classic. It's not the best book on induction coil construction, or batteries, or wireless telegraphy, or X-Ray or any other high voltage experimentation, because

adjustable condensers, experiments with luminous effects, use of the spectroscope with coils, different forms of mercury air pumps, Geissler tubes, effects of discharges in rotating tubes, application of the Ruhmkorff coil for lighting gas, and more.

You'll learn how to build batteries: Grenet, Fuller, Gravity, Dun, Gethis, Gordon, New Standard, and others. Learn how to build and use secondary, or storage batteries. Investigate the "Tesla" effects, the use of high frequency currents in electro-therapy, ways of generating X-Rays (very dangerous), the construction of a very early wireless set using a coherer detector, and much more.

You'll find many illustrations. They aren't all that spectacular but you do get 79 drawings, and 8 tables.

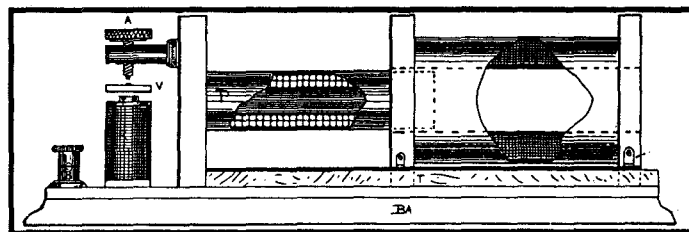
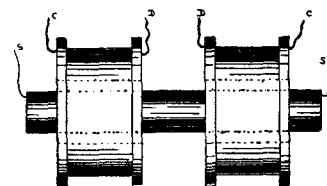
This is a book that should be in every high voltage experimenter's library. It IS a classic. If it has any fault, it's that the author has tried to cover too much material in too small a book. Nevertheless, there is much here that you can use. The reprint will cost you less than the cost of an original if you can find one. Get a copy. You'll like it. 4 1/2 x 6 paperback 288 pages
Cat. no. 20510 \$9.95



each chapter could be a book in itself. But it is a classic that anyone interested in lightning bolt generators tries to get his hands on. And although Norrie's book covers much the same information as others, you get a different slant, a different point of view that you will find useful.

Chapters include Coil Construction, Contact Breakers, Insulations and Cements, Condensers, Experiments, Spectrum Analysis, Currents in Vacuo, Rotating Effects, Gas Lighting, Batteries for Coils, Storage or Secondary Cell, Tesla and Hertz Effects, the "Roentgen" Rays and Radiography, and Wireless Telegraphy.

You get information, some of it quite unique, on Ruhmkorff coils, oil immersed coils, a disruptive Tesla coil, medical coil with interchangeable secondaries, mercury vibrators, Wehnelt interrupter, adjustable cone vibrator, insulating compounds, Leyden Jar construction, glass plate condensers,



How to Build a 40,000 Volt Induction Coil

How to Build a
40,000 VOLT INDUCTION COIL
by Walt Noon

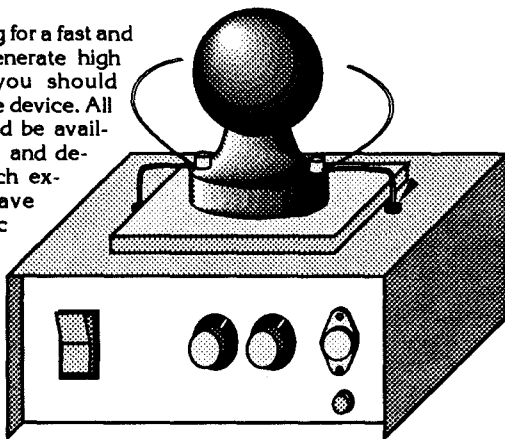
Are you looking for a fast and simple way to generate high voltage? Then you should build this nifty little device. All of the parts should be available in your area, and depending how much experience you have building electronic equipment, you should be able to bolt it together in a few hours.

As you already know, the ignition coil in your automobile is the modern equivalent of an old time induction coil. It is nothing more than a transformer that converts low voltage into very high voltage. The points in your automobile replace the old fashioned spark gap. Every time the points open, a pulse of DC current hits the coil like a hammer hits a bell. The ignition coil "rings" like a bell and produces a burst of high voltage. If you "hit" the coil fast enough, the ringing seems to be continuous.

Walt Noon's circuit here replaces the spark gap and the points with a low cost solid state circuit. The circuit takes 110 VAC out of your wall and converts it into a string of DC pulses. The pulses are sent to the terminals of an ignition coil that you can purchase at your local discount store. Off the high voltage terminal comes a solid 40,000 volts that can be used for a variety of experiments including plasma globes and Kirlian photography.

The circuit, based on a 555 timer integrated circuit, provides pulses with adjustable power and frequency. This allows you to easily tune the pulses to the natural resonant frequency of the coil which will significantly increase the output voltage.

You get drawings of the unit, parts list, circuit diagram, photos and assembly instructions for the coil. You are expected to have at least some experience building modern electronic



equipment with perf board. You get hints, tips and suggestions on where and how to make circuit modifications.

Probably best of all, Walt includes eight different experiments plus extensive details on Kirlian photography. He'll show you how to modify an inexpensive 35mm camera to take these unusual photographs in color and black and white. You also get six Kirlian photographs taken with the equipment he shows you how to build.

If you want to try your hand at high voltage experiments, this might be just the way for you to "cut your teeth", and it's something you'll be proud to show your friends. And it's a good way to literally shock the pants off them! Get a copy of this. It's unusual. It's well written. And it's inexpensive. You'll like it. 5 1/2 x 8 1/2 booklet 24 pages

Cat. no. 844

\$4.95



**ELECTRICITY AT
HIGH PRESSURES
AND FREQUENCIES**
by Henry L. Transtrom
reprinted by Lindsay Publications

This off beat book on high voltage appeared in 1913 and was revised again for publication in 1921. It has no table of contents because, I guess, the chapters have no names. It does have a list of illustrations indexed in the beginning of the book in alphabetical order! There appear to be 139 illustrations.

The entire first part of the book covers electrical theory on electricity, how it is produced by generators, ideas of induction, ampere-turns, frequency and the phase shift that occurs through reactive elements and much more. This isn't heavy stuff — practical theory that builders can use. You'll find the explanations are translations of "heavy" theory in electrical engineering texts. This is great material for the experimenter in induction coils, Tesla coils, Oudin coils, and other lightning bolt generators.

Electricity at High Pressures & Frequencies

You won't find much how-to, but you will find details about existing equipment, how it works, simple calculations on performance, and some remarkable photographs of experiments that can be performed with a lightning bolt generator.

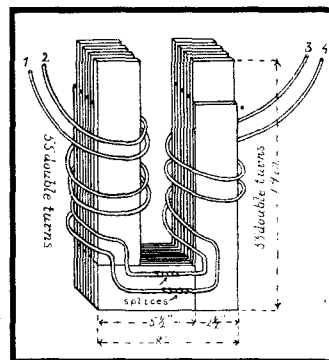
Chapter 13 on page 165 talks about the fact that Tesla, Fessenden and others have not been able to generate frequencies over 100,000 Hertz (cycles per second). Then they show you a Fessenden alternator driven by a 10 hp DC motor through gears that revolves at 20,000 rpm that kicks out over 2,000 watts of high-frequency high voltage!

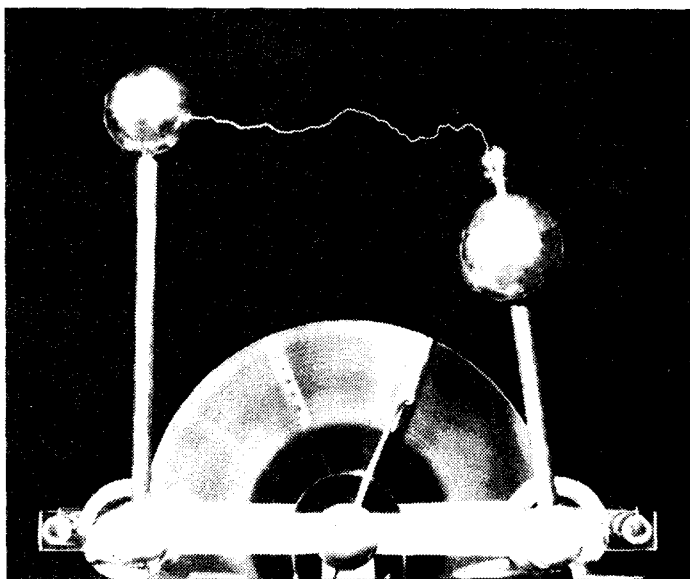
You'll then read about capacitive machines. You'll see a device that develops 15,000 volts between two ends of 25 feet of No. 4 aluminum wire! Another photo shows a 10 volt 5 watt Mazda lamp is lit to full brightness although apparently short circuited by 6 inches of No. 00 copper wire! It shouldn't work, but it does. You'll see a high-frequency transformer that throws heavy 60" sparks between its terminals. Other photos show unusual high voltage experiments. The last 20% of this book is worth the price of the entire book!

This is another must have for the high-voltage library — a book that is very difficult to find in used book stores and so on. But now everyone can afford to have a copy. Get a copy. You'll like it. Excellent book! 5x7 paperback 264 pages

Cat. no. 20544

\$11.95





HOMEMADE LIGHTNING

Creative Experiments in Electricity

by R. A. Ford

From the back cover:

"The author explains how to build an affordable high-voltage generator and then describes how to use the generator safely to conduct your own electrostatics research. Ford has compiled a fascinating collection of experiments to get you started that reveal the wide-ranging impact of electrostatics on motor design, plant growth, medicine, aerodynamics, gravity, photography, meteorology, and much more. Each of these tested, safe and inexpensive projects include thorough instructions and detailed illustrations."

Probably the best part of the book is Ford's Wimshurst machine – a beautifully built machine capable of producing 10 1/2" sparks. You get brief but adequate instructions, drawings, photographs, hints and tips to get this powerful static generator going.

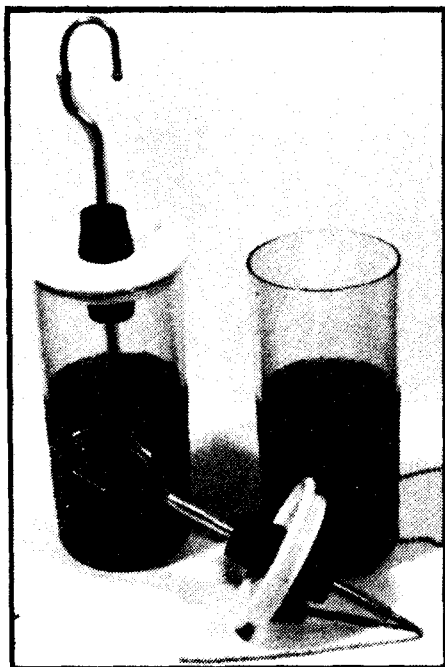
You also get plans for an electroscope, the Leyden jar condenser, and the electrophorus. Ford describes experiments you can perform such as electrostatic motors, electrohorticulture, cold light, the levitating rocket, and more. You'll also get historical articles on early electrostatic machines, instruments, and more.

This is an excellent book. It has much the same information you'll find in other books in this catalog, but this equipment is built with currently available materials. I think that if you use this book with the rare classical information found in the old reprinted books, you will be on your way into a new world of high-voltage experimentation.

You'll find this book is about electrostatics, that is, static electricity. There is nothing on AC devices such as the Tesla coil. Good book. Order a copy! 7 1/2 x 9 1/2 paperback 198 pages

Cat. no. 380

\$14.95



Build a High-Voltage WIMSHURST MACHINE

THE WIMSHURST MACHINE

How to Make and Use It

by Alfred W Marshall

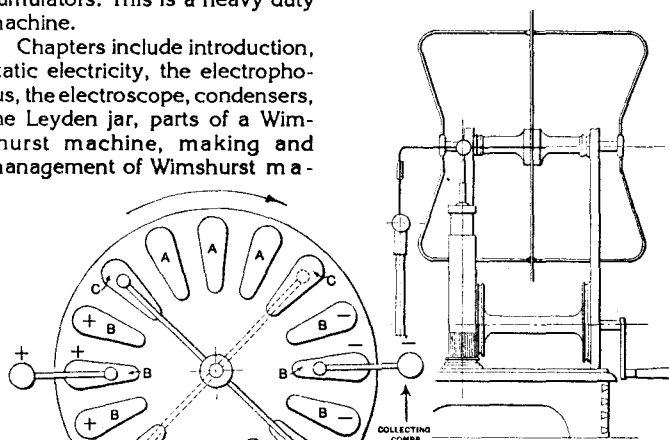
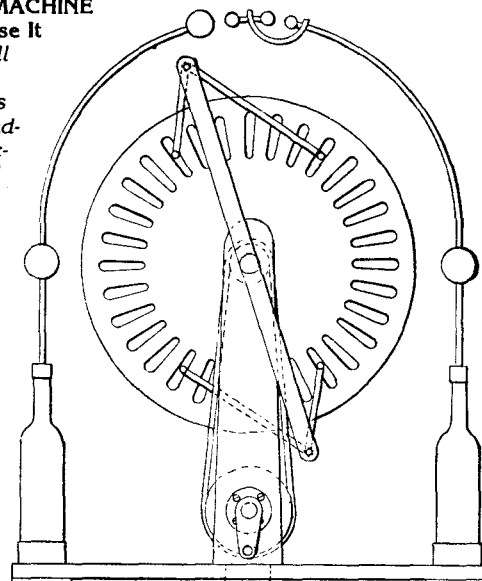
reprinted by

Lindsay Publications

"A practical handbook on the construction and working of the Wimshurst machine, including radiography and wireless telegraphy, etc., and other static electrical apparatus."

Build yourself a copy of this classic lightning bolt generator. This is no toy! Its 24" plates will knock your socks off – and probably electrocute you if used with Leyden jar accumulators. This is a heavy duty machine.

Chapters include introduction, static electricity, the electrophorus, the electroscope, condensers, the Leyden jar, parts of a Wimshurst machine, making and management of Wimshurst ma-



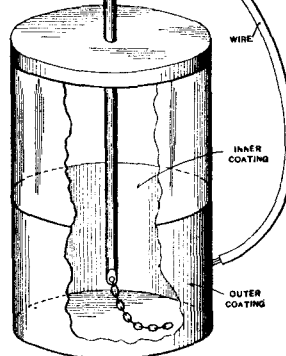
chine, examples of machines, a large Wimshurst machine, a machine for X-Ray work (dangerous), and experiments with machines.

This is a small book loaded with illustrations and wall-to-wall how-to. There are photographs but they are of poor quality. After all, in 1908 not every printer was capable of printing photographs.

This is quite a rare book. You would be hard pressed to find an original copy at any price. But you can have a copy for your library at a reasonable price and use it to build a machine or just to read. Get a copy. Great little book. You'll like it! 4x7 paperback 112 pages

Cat. no. 20331

\$7.95



Deschanel's Great 1884 STATIC ELECTRICITY

DESCHANDEL'S STATIC ELECTRICITY

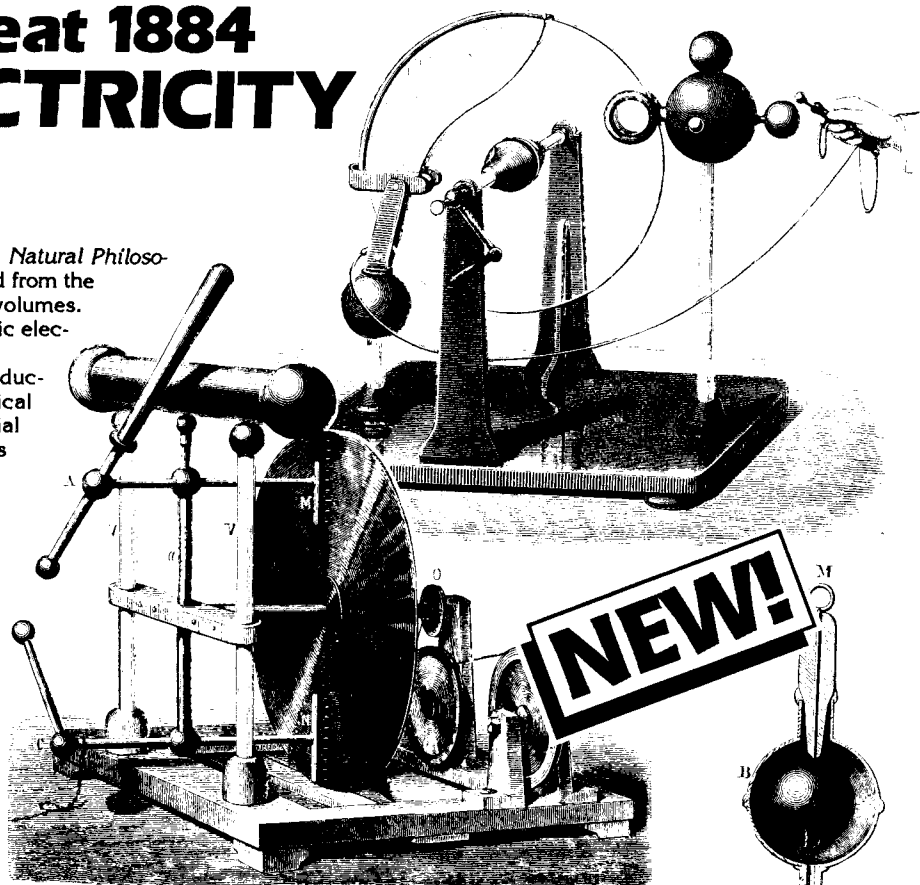
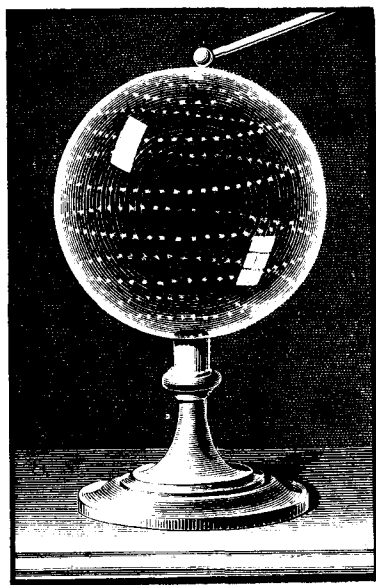
by A. Privat Deschanel

reprinted by Lindsay Publications Inc

In 1884 Deschanel's "Elementary Treatise on Natural Philosophy" (what we now called physics) was translated from the French and published in the U.S. as a series of four volumes. Here you get just those chapters dealing with static electricity.

You get introductory phenomena, electrical induction, measurement of electrical forces, electrical machines, various experiments, electrical potential and lines of force, electrical condensers, effects produced by discharge of condensers, electrometers, and atmospheric electricity.

You'll find many of the same devices described and illustrated in other books, but these are a bit different. You'll see Naimé's machine,



NEW!

an unusual variety of Winter's machine, Armstrong's Hydro-electric machine, Holtz's machine, and Bertsch's machine. Just a few of other experiments shown and described are discharge in Torricellian vacuum, the electric egg, the spangled globe, the electric mortar, Leyden jars, the condenser of Aepinus, and the condensing electroscope. You'll see rare and unusual views of the complex portable electrometer, the quadrant electrometer, and many others.

This is a detailed textbook with really great

illustrations, excellent text, and even math to back up the theory. Yes, much of this information is available in other books, but this one of the best dissertations I've seen anywhere. And you're sure to get many new ideas. Every static electricity experiment, at the very least, should have a copy for reference. You'll like it. Get a copy! 5 1/2 x 8 1/2 paperback 112 pages Cat. no. 20722 \$7.95

Static Electricity!

STATIC ELECTRICITY

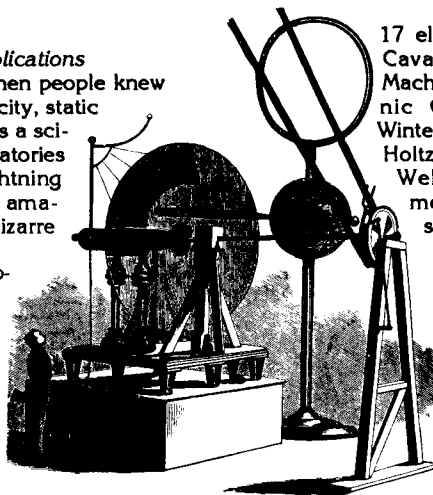
by J. H. Pepper

reprinted by Lindsay Publications

Back in the 1880's when people knew little about current electricity, static or frictional electricity was a scientific curiosity in laboratories and parlours. Giant lightning generators were built by amateurs and educators and bizarre experiments performed.

From Pepper's "Cyclopaedic Science Simplified" we've reprinted the chapter entitled "Electricity, Frictional or Statical", one of the best textbook discussions we've found yet.

You get a detailed discussion of electroscopes,



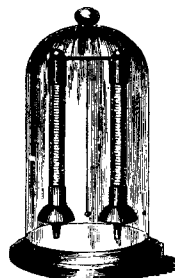
17 electroscope experiments, Cavallo's Cylinder Electrical Machine, the Royal Polytechnic Great Plate machine, Winter's electrical machine, the Holtz machine, the Electric Well experiment, experiments in induction, charge storage techniques, lengthy discussion of Leyden jars, the Leyden battery, followed by another thirty experiments including Cuthbertson's Balance Electrometer, the electric bomb, Harris's thundercloud needle, and a couple of machines for generating

Dozens of Unusual Experiments!

high voltage with a steam jet! And there is much more.

Although this is not really a cookbook for building equipment, the wood engravings are quite detailed, and the text describes the equipment thoroughly enough that you could probably build the devices without great trouble. This is a great source for unusual science fair projects.

If you like to explore old scientific principles, build unusual apparatus, or just impress your friends, consider a copy of this unusual book. I think you'll like it. 5 1/2 x 8 1/2 paperback 88 pages Cat. no. 4783 \$5.95



NEON SIGNS

Great How-To on Glass Blowing, Vacuzum Systems, High Voltage and more from 1935!

NEON SIGNS

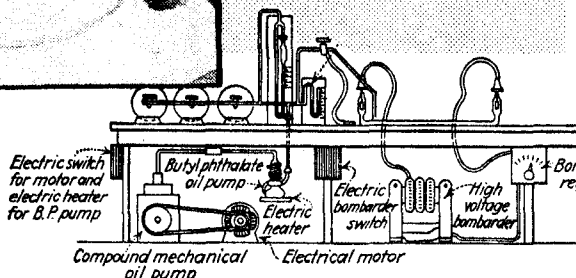
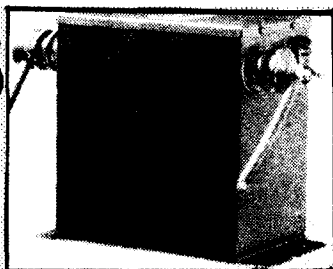
by Miller & Fink

reprinted by Lindsay Publications

Sure. Equipment, techniques, and sign design have changed since this book first appeared in 1935, but not all that much.

Even if you're not interested in making neon signs, you'll find loads of useful information on rare gases, glass blowing, and vacuum systems that could be useful in experimental physics, high voltage, or even in building your own experimental vacuum tubes!

Chapters include the luminous tube, materials, electrical equipment, types of signs, designing the sign, glass bending, pumping systems, bombarding, filling, testing, aging, installation equipment, special applications, tricks of the trade and more!



This is a quality straight-to-the-point book loaded with diagrams and photographs that you won't find just anywhere. It might be fun to make bizarre neon signs, repair "antique" signs, or just get into the trade. But even if that's not your goal, you'll find loads of unusual, interesting information. Consider this carefully. It certainly is NOT run of the mill. Order a copy. 5 1/2 x 8 1/2 paperback 288 pages Cat. no. 20340 \$12.95

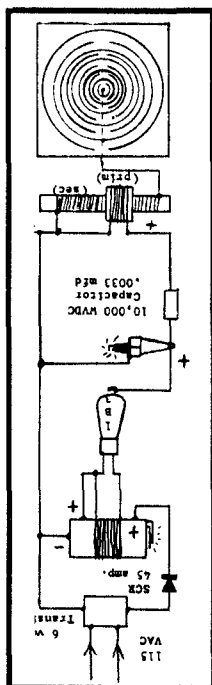
Lakhovsky Multi-Wave Oscillator!

LAKHOVSKY MULTIPLE WAVE OSCILLATOR HANDBOOK

compiled by Thomas J Brown

Supposedly sometime before World War II, Russian experimenter Lakhovsky asked Nikola Tesla to help him design a high voltage generator that could produce electrical energy at many different frequencies simultaneously. A model of the machine was tested by physicians of the time who found that it not only had a 98% cure rate for terminal cancer, arthritis, and other "hopeless" diseases, but that it could rejuvenate plants and animals as well.

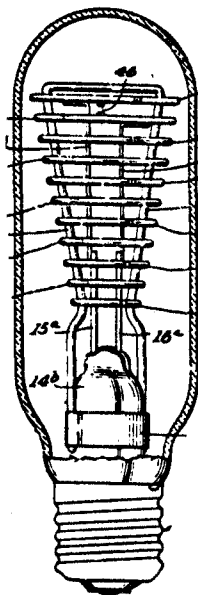
No doubt the oscillator works and is an interesting piece of equipment, but I wouldn't stake my health or anyone else's on it.



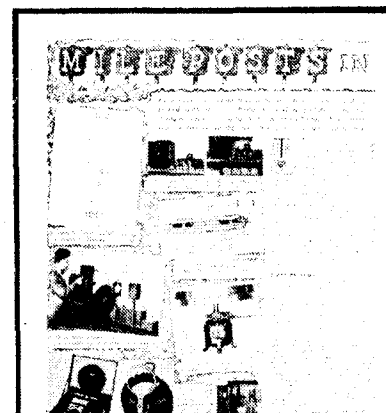
Quack medicine machines were everywhere in the 1920's & 30's. This could well be another.

In this typewritten report you get historical details, wiring diagrams, construction tips, articles on waves that heal, "documented" cases of cure, reprints of the Lakhovsky patents, and a series of reprinted magazine articles on the use of radio frequency waves to cure disease.

Modern physicians have found that electrical fields can speed healing of wounds in some instances. Perhaps this material has some merit, or perhaps it's all a hoax. Maybe it's another suppressed invention. You figure it out. You'll find it interesting reading — a very unusual collection of material. Get a copy. 8 1/2 x 11 spiral bound 156 pages Cat. no. 357 \$16.95



Amazing "Radio Craft" Magazine from 1938



RADIO CRAFT MAGAZINE

March 1938

edited by Hugo Gernsback

Radio got its start in the 1920's, but it wasn't until the 30's that it made it to the big time. By the late 30's "Radio-Craft" was one of many magazines entertaining and educating radio builders and enthusiasts.

In March 1938 the magazine published a special heavily illustrated edition on radio's first 50 years. And now you can have a complete reprint of that dynamite issue.

Articles include progress of radio receivers, reminiscences of old-timers, story of amateur radio, radio parts of yesteryear, mileposts in television, Fleming's valve, old-time radio stations, new tubes for '37-'38, super-regeneration in 1922, when the neutrodyne made its bow, early tube experiments and much, much more.

You get every fascinating article, advertisement and how-to construction tip. Great reading for anyone with even a slight interest in oldtime radio. Excellent book. Fun reading. Order a copy! 8 1/2 x 11 paperback 144 pp. Cat. no. 353 \$14.95

Plans & Instructions to Build the "MINI" TESLA ELECTRIC SPARK COIL

by John F. Nuyen

It's a small booklet, typewritten, and is not all that professionally produced. After all, Nuyen is not a slick author/publisher. He's a high voltage experimenter. In other words, this is a set of plans for a working Tesla coil written by something who has done it. It works. And you'll find a photo of the coil on the cover.

This coil uses a primary of 8 gauge wire driven by a Model-T hum coil which can be purchased from some auto supply houses (suggested sources provided.) The primary consists of 34 gauge wire wound around a 16" length of PVC tubing.

I must warn you that the how-to is not extremely detailed, but it's still quite good. Any Tesla coil experimenter would do well to have these plans.

This is a home-grown coil and a home-grown publication that you won't find in any bookstore. Look it over carefully. Brief, but fairly priced. Buy a copy and start building. 5 1/2 x 8 1/2 booklet 16 pages
Cat. no. 374 \$4.00

Plans & Instructions to Build the HIGH FREQUENCY ELECTRIC COIL

by John F. Nuyen

This is actually a Oudin coil (very similar to the Tesla coil) that like the coil above is driven by a Model-T hum coil and an 8 gauge primary. The secondary is wound with 34 gauge magnet wire around paper tubes.

You'll find this is brief, typewritten, and not

High Voltage Plans!

"slick" in appearance, but is written by someone who has done it. If you're into Tesla coils, you should have this. Order a copy. 5 1/2 x 8 1/2 booklet 16 pages
Cat. no. 375 \$4.00

Plans & Instructions to Build the TRAVELING ELECTRIC ARC (JACOB'S LADDER)

by John F. Nuyen

You've seen them — those two wires sticking up in the air in a "V" shape with a spark that starts at the bottom and slowly travels upward. You've seen them in the "mad scientist" movies. (I sometime think my mother-in-law uses one to see while she puts on her makeup!)

The ladder is easy to build and quickly goes together. It makes an impressive science fair project, although I'm not sure exactly what sci-

entific use there is for it. Maybe you can use it to terrify your neighbors, or the IRS agent when he calls.

Another typewritten booklet by someone who has done it. Get a copy — for your reference library, if nothing else. 5 1/2 x 8 1/2 booklet 16 pages
Cat. no. 376 \$4.00

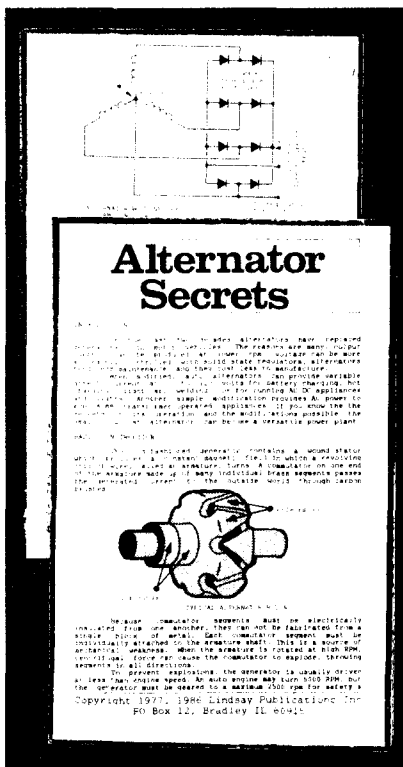
ALTERNATOR SECRETS

If you know the secrets of modification, you can get large amounts of power from a common auto alternator. You can build a portable powerplant driven by a gasoline engine to run brush-type power tools, lights, and AC-DC appliances at remote locations. You can hot-charge storage batteries, or even do light arc welding. Operation of the regulator is explained so that you can build a custom regulator, if needed, to provide regulated output voltages other than 12.

Learn how you can make almost an ordinary induction motor (like an old washing machine motor) put out 120 volts at 60 cycles without rewinding or internal rewiring. These secrets are worth the price of the booklet alone.

We've jammed a ton of information into 16 pages with small type to keep printing costs down so that we can keep the retail price the same as the old edition. Valuable, rare info! Get a copy. 5 1/2 x 8 1/2 booklet 16 pages
Cat. No. 80 \$3.00

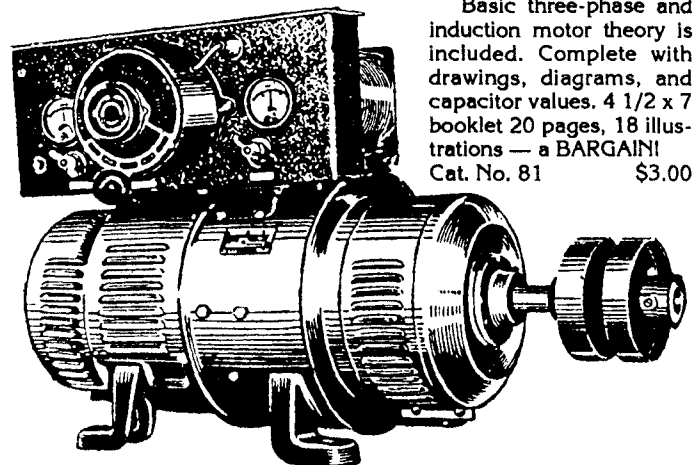
Power from Alternators!

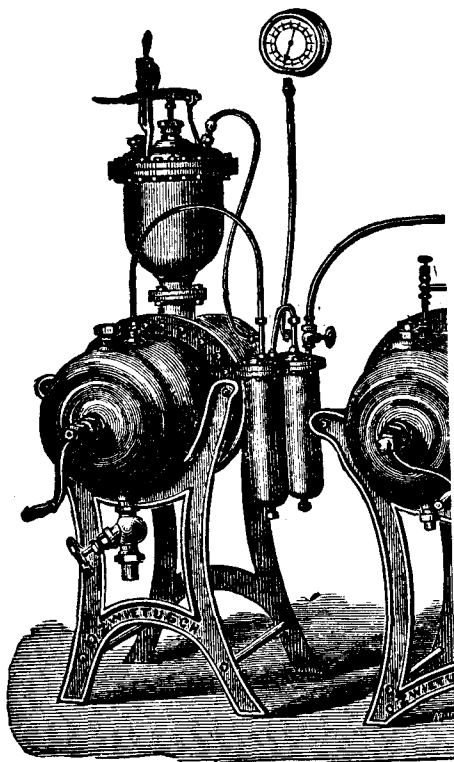


Run Three Phase Motors on Single Phase Power

Yes! You can run three-phase motors on single-phase power using any one of three excellent methods. First, lathes, drill presses, and other machine tool motors can be run with the capacitor method. Second, the autotransformer method (a technique you should buy rather than build) is useful for motors running under continuous full load. And finally you can run a whole shop full of three-phase motors from a single, easy-to-build dynamic converter! No rewinding is necessary. These methods are good to at least 150 hp and 220 volts! Low starting currents and excellent power factor are possible.

Basic three-phase and induction motor theory is included. Complete with drawings, diagrams, and capacitor values. 4 1/2 x 7 booklet 20 pages, 18 illustrations — a BARGAIN!
Cat. No. 81 \$3.00





Make Gallons of Your Own SODA POP

SODA POP!

Make your own soda! It's easy! And it's great soda!

Build this remarkably simple device using hardware store components, hook it to a bottle of carbon dioxide, and you're ready to make soda. The major expense is the CO₂ tank and its regulator. But you'll quickly recover that cost in a single summer.

You can make dynamite root beer, carbonate Kool-Aid, Coca-Cola, and other drinks at bargain prices. You can make gallon after gallon of soda water for ice cream sodas or for mixing with your favorite scotch. Experiment!

It's one of the most useful and popular machines (at least with the kids) I've ever built. A single small tank of CO₂ last me about a year, and that's an ocean of soda. Each jug is very inexpensive.

I wonder what carbonated milk, tomato juice, or chicken soup would taste like.... on second thought, just stick to soda. Don't just sit there, get going! Built a soda pop machine! 5 1/2 x 8 1/2 booklet 22 page
Cat. no. 88 \$3.00

Early FAX & TV Equipment!

VISION BY RADIO

Radio Photographs, Radio Photograms

by C. Francis Jenkins

Go back to 1925 and discover the latest devices developed to transmit photographs, in other words, the earliest fax machines and the earliest televisions!

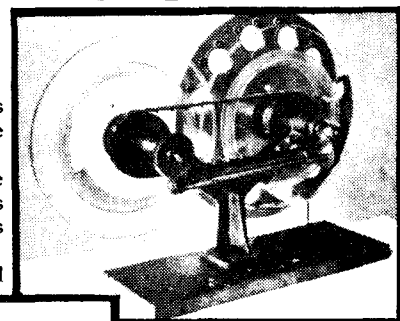
This is an amazing book! You get details on the electrical components that existed at the time, the tests that had been tried, correspondence from famous people, and historical notes.

The most interesting section, I think, is illustrated review of existing machines: Nipkow & Sutton, the Amstutz system, the Electrograph, the Baker machine, the Dr. Korn Machine, the Rignoux and Fournier Scheme, the Belin machine, the AT&T machine, RCA's machine, the Braun Tube receiver, pictures by radio in natural colors (!), prismatic disc machines, the Jenkins prismatic ring, Jenkins synchronizing forks, Jenkins picture-strip machine, Jenkins Duplex machine, talking machine photograms, radio vision (television), Jenkins high speed camera, and more.

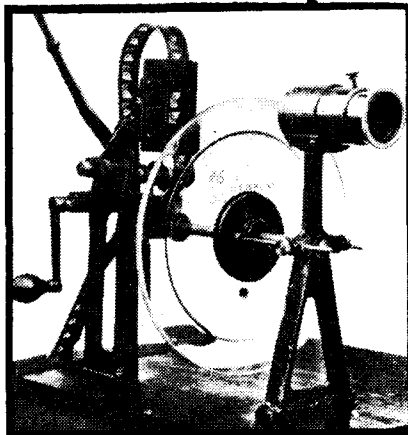
Obviously, this book was written and pub-

lished to glorify Jenkins and Jenkins Laboratories Inc (no doubt so he could make more money). But it delivers more photos, drawings, and patents on early fax and TV equipment than I've ever seen anywhere before.

It's really good, and the price we ask is a mere fraction of what you'd pay for an original if you could find one. Rare information! Excellent book. Get a copy! 5 1/2 x 8 1/2 paperback 140 pages
Cat. no. 20200 \$9.95

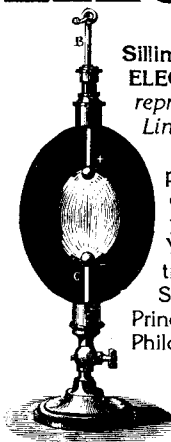


1925 Television



Silliman's ELECTRICAL MACHINES

Silliman's
ELECTRICAL MACHINES
reprinted by
Lindsay Publications

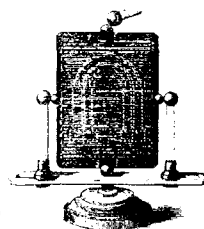


If you'd like to build a powerful lightning bolt generator, this a publication you should study for ideas. You get beautifully illustrated pages from Benjamin Silliman's book entitled Principles of Physics or Natural Philosophy published in 1865.

Learn about electrophorus, the cylinder electrical machine, Ramsden's plate machine, the American plate machine,

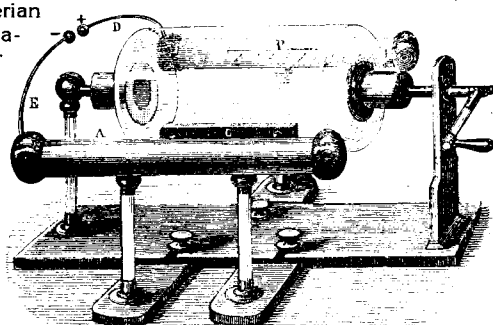
Ritchie's double plate machine, the Tylerian machine, care & management of machines, electricity from steam, and other sources of electrical excitement. Discover seven simple but entertaining experiments. Then investigate equipment to store electricity such as the Aepinus condenser, Volta's condensing electroscope, Dr. Hare's single gold leaf electrometer, the Leyden jar, Leyden jar batteries, the spark, Kinnersley's thermometer, electrical discharge in a vacuum, the diamond jar, scintillating tube and magic squares, chemical experi-

High
Voltage
equipment
from
1865!

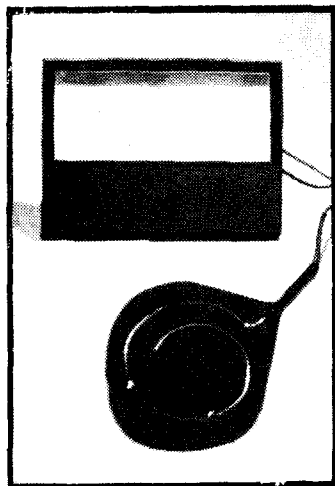


ments, Volta's lamp and more.

This is another collection of rare static electricity information that is no longer found in modern physics textbooks. And wood cut illustrations like these haven't been produced in decades. Get a copy of these. It will make an excellent addition to your reference library. 5 1/2 x 8 1/2 booklet 24 pages
Cat. no. 840 \$3.25



Build a SOLAR CELL that really works!



How to Build a SOLAR CELL That Really Works by Walt Noon

Yes! You CAN build a solar cell that converts sunshine into electricity. And it's really quite easy.

Modern high efficiency solar cells based on silicon crystals are difficult and dangerous to manufacture. You would need exceptionally expensive equipment just to perform the most basic experiments. But fortunately there is another method.

Walt Noon will show you how to quickly and inexpensively build a copper oxide photo cell. Admittedly its overall efficiency doesn't come close to modern silicon cells, but neither does the cost. You can crank out cells for pennies. Connect many cells in parallel and series, and you can generate surprising amounts of power.

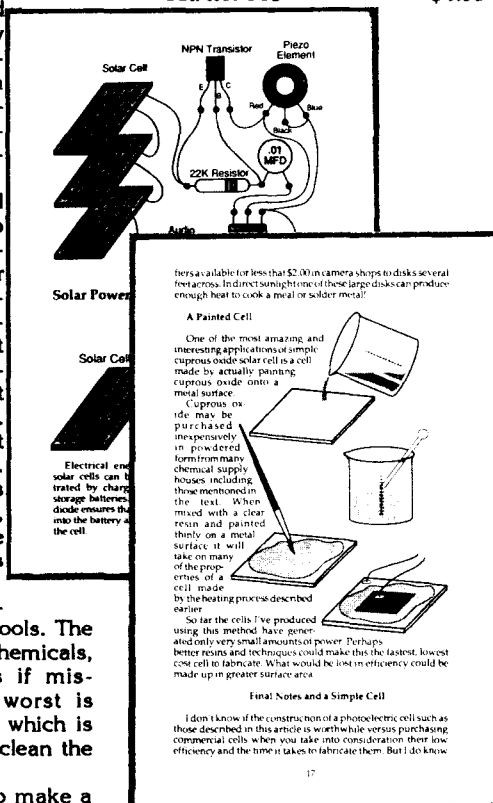
The process requires only simple tools. The chemicals, like all chemicals, can be dangerous if mis-handled, but the worst is probably nitric acid which is used to thoroughly clean the copper.

He'll show you to make a

working cell, test it, troubleshoot it if necessary, and even give you ideas on an experimental painted cell that he's working on. In addition, he'll give you schematics of test circuits, sample applications, and interesting projects that he's tried. You'll also get names and addresses of suppliers.

That author is not a professional, but he has safely built and used these solar cells, and he's willing to show you how its done. You get a 24 page booklet with many drawings, schematics and photographs that describes the relatively simple process in detail.

Build solar cells! Perhaps you can make some improvement in the process that will improve efficiency. Build electronic equipment. Charge batteries. Build a great science fair project. No matter what your objective, you'll find this to be a fascinating project worth trying. Rare information! Order a copy of this inexpensive booklet today. 5 1/2 x 8 1/2 booklet 22 page Cat. no. 819 \$4.95



Photocells and Their Application

PHOTOCELLS
and Their Application
by Zworykin
and Wilson
reprinted by
Lindsay Publications

Here's a fascinating book! Zworykin is credited with making television practical by developing the iconoscope

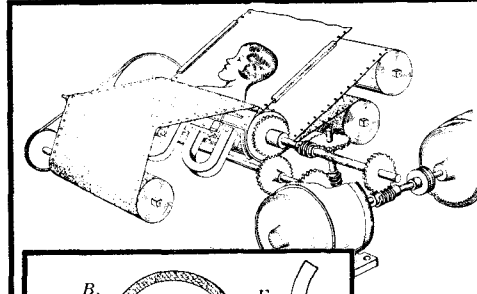
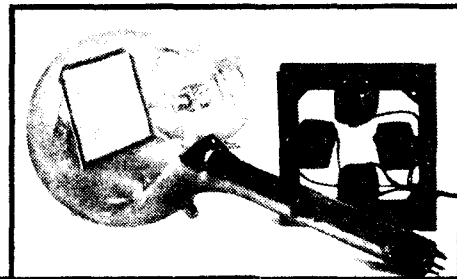


photo-voltaic cells, photocell output and amplifying tubes, optimum outputs of photocells, the problem of amplification, special light-sensitive devices, the photocell in photometry and colorimetry, the photocell in

sound movies, the photocell in facsimile, the photocell in television, miscellaneous applications, and photocells in the future.

You get great illustrations from vacuum pumps, cesium-oxide cells, and amplifier schematics, to a Zworykin multiple cell, Nipkow TV system, and early FAX machine. This is easy-to-read and covers great material. There is a little math, some of it heavy, but what do you expect? This was written for engineers.

for RCA that allowed the experimental TV broadcasts before World War II, and with the extremely sensitive image orthicon that made modern TV possible after the war. (I have a couple of each of these old tubes in the warehouse. They're beautiful devices!) This book was first copyrighted in 1930, with this second edition carrying a 1934 copyright.

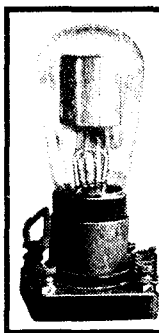
You get a complete education in photocell state-of-the-art as it existed in the early 1930's. This is the base material that lead us to television and the solar cell technology.

Chapters include historical introduction, radiant energy, photo-emissive effect, photosensitive films, material and apparatus for making photocells, general methods of preparing photocells, the vacuum photocells, the gas-filled photocell, photo-conductive photocells,

There is limited material on cells which produce electricity directly from sunlight such as the Rayfoto cell, the Photolytic cell, the Ruben cell, the Grondahl-Gieger cell (a copper oxide cell the plans for which are offered elsewhere in this catalog), the

Sperrschicht cell, and others. You won't get how-to-build instructions, but you might very well get the bits and pieces that lead you off into a new direction of experimentation, or provide you with new ideas to research in technical literature.

This is a great book presenting rare information. And it's written by a giant in the history of television. It's easy and fun to read. The illustrations are great. Yes, you know I'm strange, but I think that you'll enjoy reading this as much as I do. I like it. I think you will too. 5x7 paperback 348 pages Cat. no. 20560 \$11.95



LeJay Manual

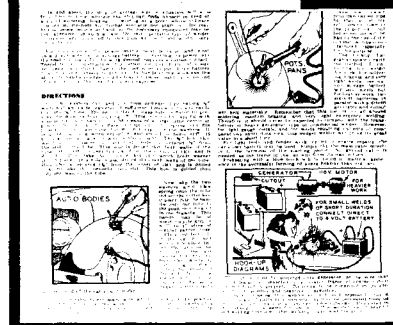
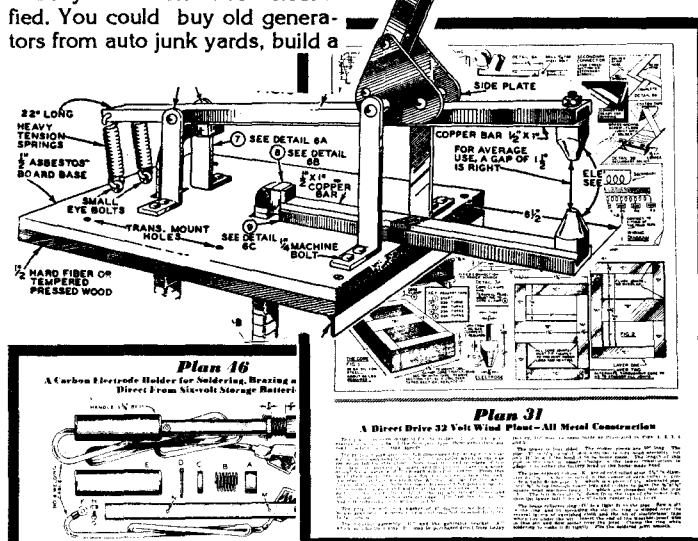
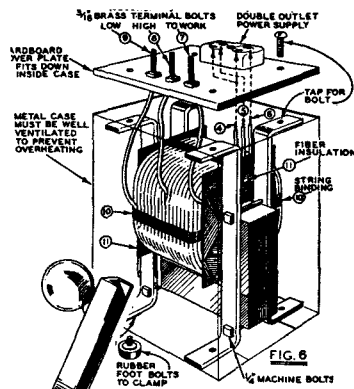
LeJay Manual - 1945 Edition

by Lawrence D. Leach

reprinted by Lindsay Publications

Beginning in the 1930's the LeJay Mfg Co in Minneapolis began publishing a booklet of plans for unusual electrical projects. As new editions came out, new plans were added until by 1945 there were 50 separate "chapters".

As you can see from the contents, most of the articles deal with the conversion with now-antique auto generators into 110 volt alternators, other voltage generators and motors. A lot of this info was used in areas of the country that hadn't been electrified. You could buy old generators from auto junk yards, build a



windmill, repair old auto batteries, use the electricity generated to power homebuilt motors, welders and so on.

Most of the information in this booklet is now of limited value simply because you can't get the generators listed. But rewinding data, hints and tips provided can help you in other rewinding projects for other types of generators.

There ARE several projects in this booklet any one of which is

worth the entire price of the publication. For instance, you can build a small but useful spot welder powered by nothing more than a string of auto batteries. You get plans for an arc welder, a transformer spot welder, a carbon-arc torch, electric bicycle, a water wheel, windmills and more. And they're all well illustrated.

This is a manual worth having in your reference library. You may not be able to use all of the information, but you'll get so many ideas even from those chapters you can't use, that you'll find this manual to be worth many times its retail price.

Great ideas. Fun to read. Useful projects. Worth having. Order a copy! 8 1/2 x 11 booklet 32 pages

Cat. no. 20013

\$5.95

Contents

- 1 Plans for 110 Volt AC Light Plant made from Ford Model "T" Generator
- 2 200 Watt AC Generator for Automobile Made from Ford Model "A" Powerhouse
- 3 A 6 Volt Slow Speed Generator (with plans for all-metal windmill)
- 4 6 Volt & 12 Volt Slow Speed Generators from Dodge "G" or "GA" Northeast Generator also from other Generators
- 5 A 32 volt slow speed wind light Plant Generator
- 6 One 32 Volt Motor, One 110 Volt Motor, One 32 Volt Generator, One 110 Volt Generator from Dodge Generator
- 7 How to Make a Grinder, Series Motor, Constant Speed Motor, A Universal AC or DC Motor and a Soldering Iron
- 8 A 75 to 110 Ampere Arc Welder Made from Dodge "G" or "GA" Generator. Also Dual Welders.
- 9 Pendulum Type Fence Controller made from Ford "T" Coil
- 10 Plans for Building a Complete Wind Light Plant Including Tower, Propeller and Generator Charger
- 11 A 110 Volt AC Light Plant Generator
- 12 A "B" Eliminator For Your Battery Operated Radio
- 13 An Automobile Generator Booster Control
- 14 A 6 Volt Slow Speed Generator from Standard 14 Slot 28 Bar Generator
- 15 A 32 Volt Constant Speed Generator made from Ford "T" Generator
- 16 A 2 Volt Slow Speed Generator from Standard 14 Slot 28 Bar Generator
- 17 How to Convert A 6 Volt Cut-Out for 2 Volt Operation
- 18 Directions for Repairing Your Own Batteries
- 19 A Water Wheel Made from Old Automobile Wheel
- 20 An Electric Outboard Motor from Old Ford "T" Generator
- 21 A Gas Engine or Motor Driven Generator with Drawings in Detail
- 22 An Armature Growler for Testing Auto or Slow Speed Armatures
- 23 Two 32 Volt Series Motors from Dodge "G" or "GA" Generator
- 24 A 32 Volt Heavy Duty Motor made from Dodge "G" or "GA" Generator
- 25 A Bench or Breast Drill for 6, 12, or 32 Volts from "T" Generator
- 26 A 6 Volt Motor for Drill Press, Washing Machines, etc. made from Model "T" Generator
- 27 One 12 volt Motor and One 32 volt Motor Made from Model "T" Generator
- 28 Two 6 Volt Generators from the Dodge, also general information
- 29 A 110 V. or 220 VAC Portable Transformer for Arc Welding
- 30 A 110 Volt Spot Welder — 1 Kw. Input Normal Draw 10 to 11 Amps
- 31 A Direct Drive 32 Volt Wind Plant - All Metal Construction
- 32 A Battery Spot Welder
- 33 Armature Diagrams for Autolite, Bosch-Autolite and Bosch Generators
- 34 Armature Diagrams for Delco, Delco-Remy, & Remy Generators
- 35 Armature Diagrams for Ford A, B and V8 Generators
- 36 Armature Diagrams for Northeast Generators
- 37,38 Armature Diagrams for Atwater-Kent & Dyneto Generators
- 39 Armature Diagrams for Leece-Neville Generators
- 40 Armature Diagrams for Wagner Generators
- 41 Armature Diagrams for Westinghouse Generators
- 42 Plans for Installing Lights on Your Tractor
- 43 Two Types 110 Volt AC Insect Exterminators
- 44 An Electric Scooter Using a 6 or 12 volt Battery for Power
- 45 An Electric "Go Bike" Using a 6 or 12 volt Battery for Power
- 46 A Carbon Electrode Holder for Soldering, Brazing and Light Welding Direct from Six-volt Storage Batteries
- 47 Ball Type Fence Controller Made from Ford "T" Coil
- 48 110 Volt AC 500 Watt Self Excited Generator from Dodge Model "G" or "GA" generator
- 49 110 Volt AC 60 Cycle 1/2 HP Synchronous Motor from Dodge Model "G" or "GA" Generator
- 50 An AC Welding Transformer Using Dodge Generator Coils
- Appendix Windpower Information, Definitions, etc.

EXPERIMENTAL SCIENCE!

EXPERIMENTAL SCIENCE

by George M. Hopkins

Fantastic! There is no other way to describe this incredibly illustrated two-volume set from 1906. It is certainly worth having.

Starting about 1889 "Scientific American" Magazine published a regular column by George Hopkins showing readers how they could build experimental equipment and test their own versions of new inventions such as the electric light, telephone, and phonograph. Hopkins' columns were routinely reprinted in books, and this 25th edition from 1906 had to be split into two volumes. And what a pair of volumes they are!

You'll find some of the most fantastic wood engravings ever, illustrating experimental equipment of all types.

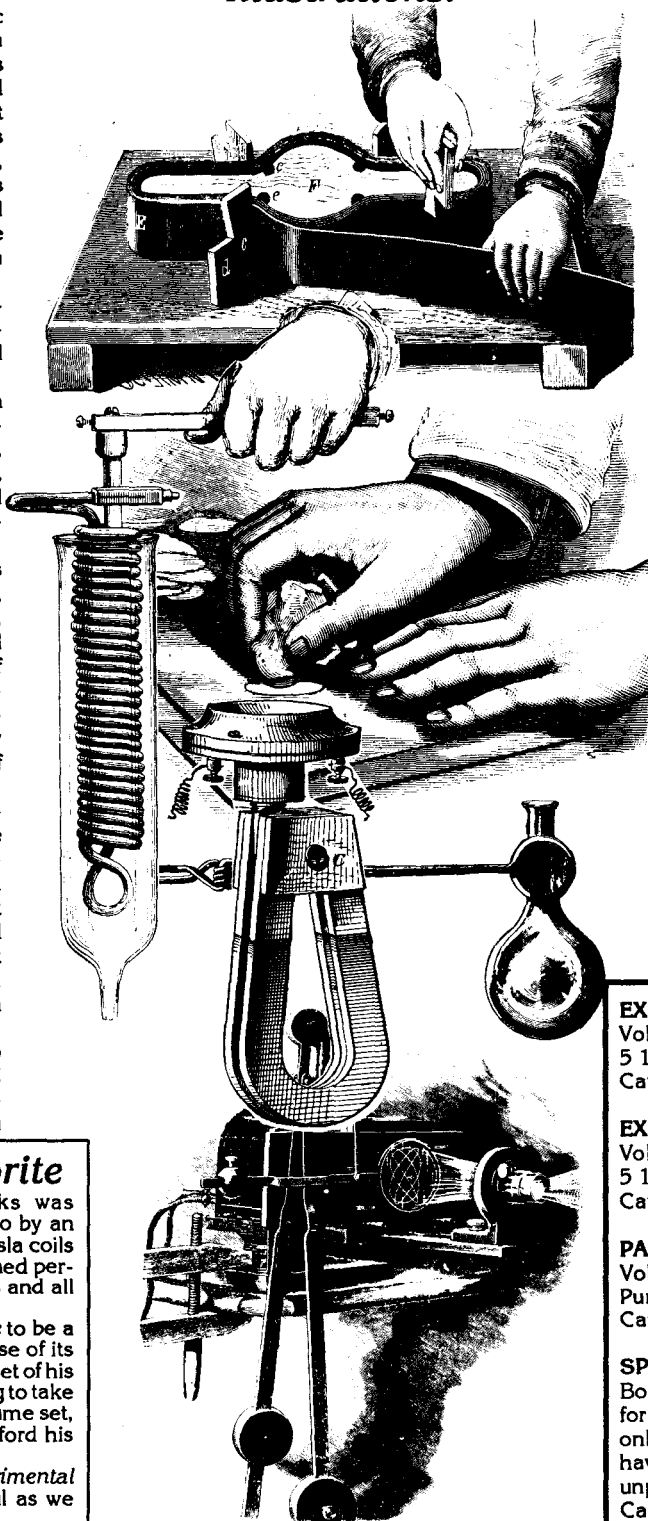
Volume One consists of nineteen chapters on rest, motion, force, gyroscopes, liquids, gases, sound, heat, light, polarized light, microscopy, photography, magnetism, frictional (static) electricity, dynamic electricity.

Build a gyroscope, Foucault's pendulum, a simple hydraulic press, a hydraulic ram, simple air pump, Geissler tube, a recorder for sound vibrations, device for production of sounding waves, a simple phonograph, centrifugal siren, and Norremberg Doubler. And these are just a few of the projects in only the first half of the first volume!

You can build a simple microscope and accessories, or a simple camera with plate holder, make Daguerreotype photos like those from the 1840's (dangerous), experiment with magnets, static electricity, build all kinds of batteries, a device that converts heat directly into electricity, build bells, electromagnets, and even a 1/4 hp electric motor.

Volume Two will take you into more electricity by investigating AC electricity, arc lamps, high voltage induction coils, and much more. You

Over 1,000 Pages! • Incredible Machines! • Forgotten Experiments! • Incredible Illustrations!



can build a telephone. Build a magic lantern and perform a variety of interesting projections.

You'll get practical how-to on blowing glass, making lenses, etching glass, making test tube racks and the like, making and using a crucible furnace, sand casting, making carbon rods and plates, and more.

You'll be shown how to perform a variety of scientific parlor tricks. Discover scientific uses for the phonograph, build an opaque projector, and a simple acetylene gas generator. Try experiments with super cold liquid air, or new advances in photography including color photography, divining rods and metal detectors, long distance telephony, new wireless telegraphy, building an electric clock, high voltage experiments, even poly phase electricity!

If you haven't guessed by now, this is both an introduction to physics and simple directions for building strange equipment.

The how-to you get is not overly detailed. You're expected to have some mechanical ability. You *WILL* get excellent illustrations that will show you almost everything you need to know. Any additional secrets are pointed out in the text.

If you want to build and run scientific equipment that hasn't even been seen in decades, you should have this. Kids can build a unique science fair project. Old book lovers will treasure this. And if you love machines, you will get hours and hours of enjoyable reading.

It's impossible to reveal the scope and beauty of these two books in the limited space this catalog provides. But take my word for it, these are fascinating books. Top quality. Expensive, but worth the price. Look them over carefully.

Researcher's Favorite

The existence of these books was pointed out to me several years ago by an avid experimenter who has built Tesla coils and Wimshurst machines, researched perpetual motion, free energy devices and all types of unorthodox subjects.

He found *Experimental Science* to be a very valuable reference, but because of its rarity, he hadn't been able to buy a set of his own. When I told him that I was going to take a chance on reprinting the two volume set, he jumped for joy. Now he can afford his own set. So can you.

We're confident you'll find *Experimental Science* as much fun and as useful as we have.

EXPERIMENTAL SCIENCE

Volume One

5 1/2 x 8 1/2 paperback 560 pages

Cat. no. 4490 \$19.95

EXPERIMENTAL SCIENCE

Volume Two

5 1/2 x 8 1/2 paperback 532 pages

Cat. no. 4503 \$19.95

PACKAGE - Paperback

Volumes One & Two

Purchased separately: \$39.90

Cat. no. 926 \$34.95

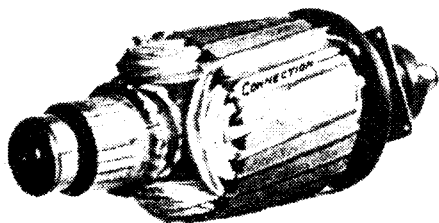
SPECIAL HARDCOVER OFFER

Both volumes in sewn hardcover bindings for libraries and collectors. Available in sets only. Relatively few hardcover volumes have been printed. Availability may be unpredictable.

Cat. no. 927 \$48.95

AUTOPOWER

Classic 1935 text on automobile generator conversions and modifications!



AUTOPOWER — Automobile Generator Conversions and Modifications

by S. W. Duncan

reprinted by Lindsay Publications

From out of the Great Depression comes this unusual book on ways to make auto generators produce unusual amounts of power. The major problem with this book is that the generators being rewound are no longer available. Even if you were to find one of the units listed it would now be a hard-to-find part for an antique car. If you were to rewind one of these antique generators, I'd personally drive over and "smack you up 'long side the head!"

If that's the case, then why would I reprint something like this? Simple. The principles taught here can be applied to modern generators, DC motors, starter motors and more. You get detailed, practical how-to that can be adapted to modern needs. In other words, this is raw material for your brain. I can't guarantee your success, but I can guarantee that the info you find here is rare, and that you'll get your money's worth.

Chapters include changing a Ford Model A generator to a 110 volt alternator, get constant voltage at variable speed, converting a Dodge 12 volt generator into a 110 volt 500 watt alternator, changing a model T to 110 volt AC, making field and armature coils, changing a Delco generator to 110 Volt AC, the winding of automobile armatures, characteristics of DC generators, suggestions on mechanical construction of generators, figuring a new winding for an old frame, converting a farm light plant to 110 volt AC, and a chapter of definitions.

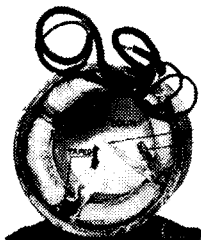
This is a heavily illustrated volume, wall-to-wall how-to.

We reproduced this from a stained, greasy, and obviously used copy of the original 1935 edition. We managed to clean it up to a remarkable degree, but the type is light in some places and some photographs are dirty. Although it's not perfect, it reproduced surprisingly well all things considered.

Get a copy of this. It's great even if it is old. This is one of those manuals that people talk about having seen years ago, but can no longer find. It's worth having a copy just for reference. Order a copy today. 5 1/2 x 8 1/2 paperback 56 pages

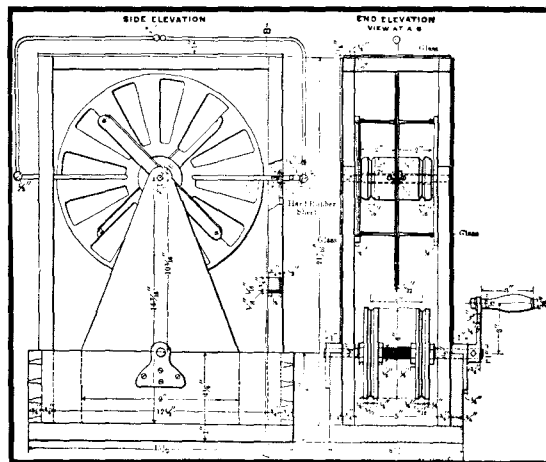
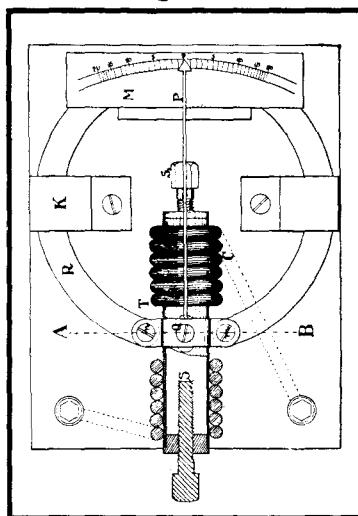
Cat. no. 4791

\$4.95



ELECTRICAL DESIGNS!

34 Projects! From motors to Tesla Coils!



ELECTRICAL DESIGNS

Articles from American Electrician Magazine

reprinted by Lindsay Publications

By 1901 people were getting tired of shocking the cat. They realized that electricity was more than a novelty, and that it could be put to use doing heavy work. But electric motors were scarce and very expensive. It's no wonder that half of the pages in this book are devoted to building and winding motors.

As interesting and useful as motor plans are to some people, the beauty of this volume are the plans in the back half. You'll learn how to build rheostats, reactive coils, ammeters, voltmeters, a simple wattmeter, and a galvanometer.

Build a storage battery, a Bunsen photometer to measure the candlepower of light bulbs, an arc lamp, and a Nernst lamp. Build a telephone, a dry cell, and handy tools for working on motor commutators.

If you're into high voltage, you'll find useful plans for an induction coil, a Tesla-Thompson coil, a high voltage condenser for use with Tesla coils, and a powerful Wimshurst machine.

Every article is illustrated, and most drawings are dimensioned. The text is brief and to the point, but it should provide more than enough information for you to complete the project.

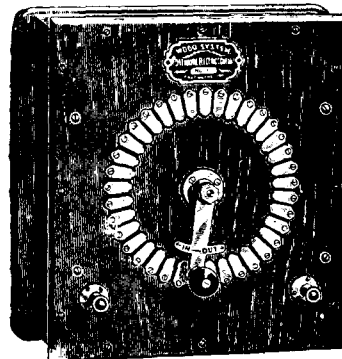
It doesn't matter whether you're interested in collecting ideas for winding modern working motors from the specs and instructions here, or if you're trying to build early exotic test equipment. You'll find something here to interest you.

With plenty of hard work you could probably build an entire electrical system: alternator, transformer, motors, rectifier, storage battery, lamps, telephone without having to buy any commercial parts other than wire! Think about it. Your friends would call you a modern day Thomas Edison!

Great ideas. Unusual plans. Plenty to keep your mind and hands busy. Get a copy of this! It's worth having! Order today. 5 1/2 x 11 paperback 262 pages

Cat. no. 4228

\$11.50



Plans For

- one-sixth horsepower motor with drum armature
- one-sixth horsepower motor with ring armature
- one-fourth horsepower motor with drum armature
- four kilowatt combined AC & DC machine
- single phase rectifier
- universal alternator for laboratory purposes
- one-quarter horsepower induction motor
- simple transformer in four sizes
- construction of a reactive coil
- construction and calculation of rheostats
- simple voltmeters, ammeters, wattmeters
- d'Arsonval galvanometer
- sensitive mirror galvanometer
- Thomson Astatic Galvanometer
- cheap testing set
- construction and use of a photometer
- construction of a simple storage battery
- construction of a constant potential arc lamp
- an experimental Nernst lamp
- construction of an induction coil
- construction of a Tesla-Thompson high frequency coil
- condenser for extremely high potentials
- construction of a Wimshurst influence machine
- telephone transmitter and receiver
- construction of a dry battery cell
- some handy commutator tool
- and more!

Experimental Physics

Procedures in
EXPERIMENTAL PHYSICS
by John Stong
reprinted by Lindsay Publications

If you consider yourself an experimenter, an inventor, or a builder of unusual machines and equipment, you must have a copy of this fantastic classic text. No two ways about it.

You'll find wall-to-wall practical how-to and incredible illustrations on almost every one of the more than 600 pages. Chapters include: laboratory glass blowing, laboratory optical work, technique of high vacuum, coating of surfaces by evaporation and sputtering, the use of fused silica, electrometers and electroscopes, geiger counters, vacuum thermopiles and the measurement of radiant energy, optics, photoelectric cells and amplifiers, photography in the lab, heat and high temperature, notes on the materials of research, notes on the construction and design of instruments and apparatus, and molding and casting.

This is some incredible stuff! Learn how to blow glass and make aspirators, distillation condensers, and so on. Learn how to seal copper to glass so that you can imbed electrodes. This could be handy for trying to make light bulbs, vacuum tubes, or x-ray tubes maybe.

Learn how to rough cut lens blanks from large plates of glass and then grind them into lenses on your homebuilt lens grinder. Learn how to make a parabolic telescope mirror using the standard techniques. Learn to make unusual equipment to test the finished mirror. Learn how to grind a Schmidt lens.

To create high vacuum you'll read about roughing pumps, the vapor pressure of waxes, getters for creating the highest vacuums, and learn to make a variety of diffusion pumps using mercury and oil. See charcoal traps, kinetic vacuum systems, vacuum gauges of all types. Remember, all this comes with construction details.

Learn how to silver mirrors with a variety of methods including vacuum sputtering. You'll find extensive details on the evaporation technique for aluminum.

Fused quartz is valuable because unlike glass it can withstand extreme temperature changes without shattering. Learn how to build

Incredible Laboratory Secrets!
Wall-to-wall Illustrations!
Rare "how-to" information!
Reasonable Price!

ray and cosmic ray work. Build a Geiger counter. You can build your own Geiger-Mueller tube if you master the high-vacuum technique taught earlier. Unfortunately, most of the electronics described is based on vacuum tubes of fifty years ago rather than on transistors.

Build vacuum thermopiles that measure infrared, visible light and ultra-violet so accurately that they can be used to calibrate photographic lightmeters and such.

You've heard of carbon arc lights, but do you know how to build iron arc lights? Or low pressure mercury arc lights? And others? You can even build a machine to measure the wavelength of colored light.

You'll find details on hydrogen furnaces, crucibles, burners, electric arc furnaces, and even a lab setup for making artificial rubies and sapphires! And there's much more - even down to what we consider the "easy stuff" like using a lathe and sand casting.

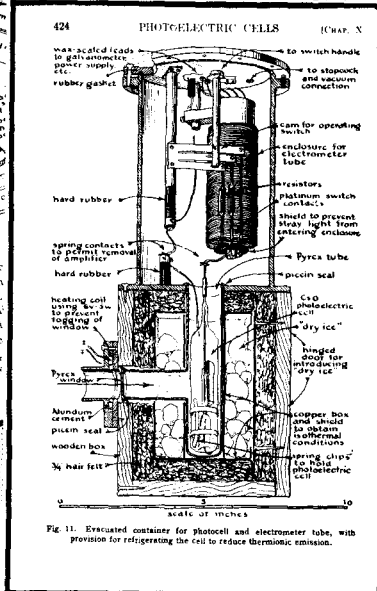
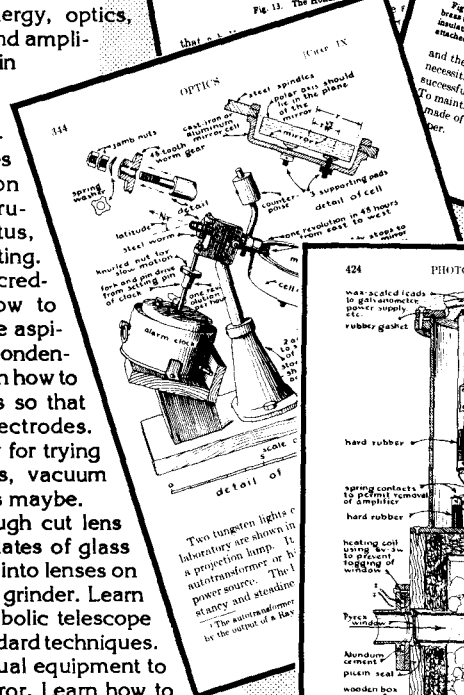
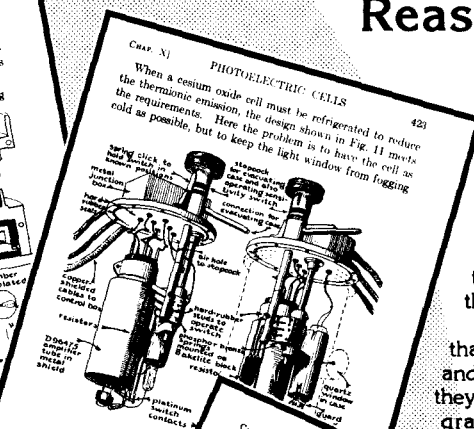
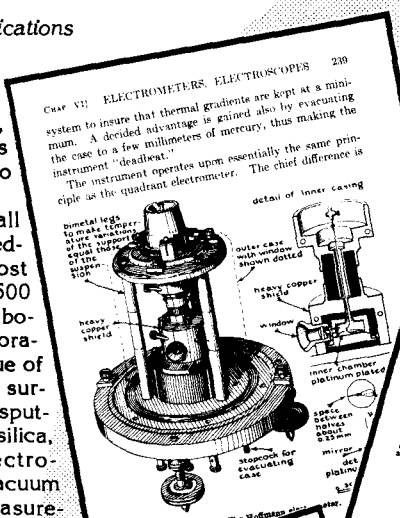
You should see by now that this is a fantastic book loaded with construction secrets for unusual equipment. And you should now understand how a book first published in 1938 went through a couple of dozen printings! It's a classic. It's incredible. You should have a copy for reference if nothing else. Highly recommended. Order a copy today.

5 1/2 x 8 1/2 sewn paperback 642 pages
Cat. no.4562 **\$23.95**

SOMETHING YOU SHOULD KNOW

This is no ordinary paperback book. "Experimental Physics" is printed on acid-free paper and is sewn like a hardcover book to prevent pages from falling out.

According to pricing formulas, it should sell for much more. If a book like this were released today by a certain major book publisher whose books I've carried from time to time, they would charge from \$45 to \$65 a copy. Maybe even more. At \$23.95 it's a steal. Get a copy.



micromanipulators and all the rest of the equipment to produce tiny fibers that can be used for suspending the elements of an electrometer, for cross hairs in optical instruments, or for building a balance. The microbalance shown is supposed to be sensitive down to a billionth of a gram per division!

And there's so much more! Build a Compiton adjustable quadrant electrometer, a Hoffman electrometer, and others useful for x-

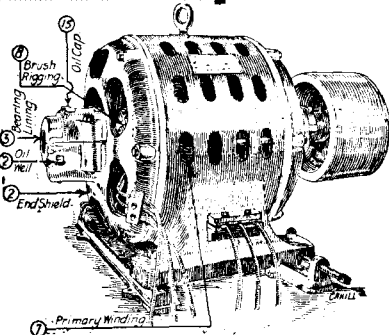
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ARMATURE WINDING AND MOTOR REPAIR

by Daniel H. Braymer

From 1920 comes this motor rewinding book loaded with drawings and photographs that will show you how to build both AC and DC machines.

Chapters include: DC machines, AC machines, shop methods of rewinding DC armatures, making commutator connections, testing DC armature windings, operations before and after winding DC armatures, insulating coils and slots for winding, shop methods for rewinding AC machines, testing induction motor windings for mistakes and faults, adapting DC motors to changed operating conditions, practical ways for reconnecting induction motors, commutator repairs, adjusting brushes and correcting brush troubles, inspection and repair of motor starters and gen-

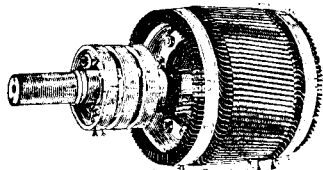


Classic 1920 Text!

niques from removing old windings and cleaning slots, to winding the coils, insulating the end connections, inserting the coils, painting the windings, relining split bearings, and much more. You get data on all types of wave and lap windings, varnishing and insulating materials, and much more.

I make you no promises, but this is the logical place to start should you want to rewind a motor to particular voltage, wind a generator or alternator for use with a windmill or waterwheel, rewinding a big generator for use as a welder, modify a DC motor for use in an electric car, and so on.

This is a beautiful book. You get over 500 pages of clearly written, wall-to-wall practical how-to with excellent illustrations. This is as good as, and in most cases, is much better than, any motor book



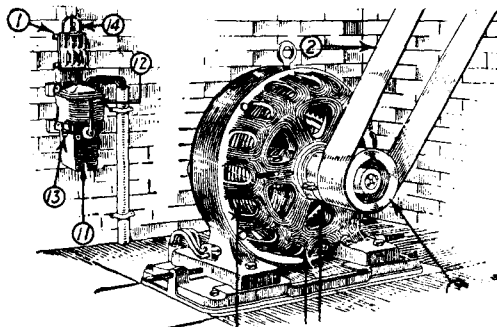
erators, diagnosis of troubles, methods to solve special troubles, tables and more.

One special chapter at the back will show you how to build the special tools and jigs, an armature sling, a pinion puller, coil winding machine, a coil taping machine, commutator slotter, armature banding machine and more.

The motors described are large types used in factories. But the principles apply to the smaller motors you and I use.

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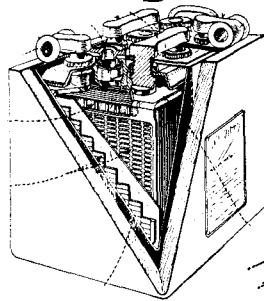


I've carried in the past, regardless of price. It's a gem that should be in the reference library of most "machine freaks" (that includes you, son). Order one as soon as you can. 5 1/2 x 8 1/2 paperback 540 pages

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Storage Batteries Simplified!



whole chapter deals with battery defects, how to make electrolyte, dismantling and repairing batteries. You get full details on how to charge batteries, plus a chapter on their use covering auto starting and lighting, electric autos, railroad use, street cars, mines and even WWI submarines!

I don't think the battery repair instructions will be very useful with modern batteries,

and I wouldn't even try to build some of the battery chargers described. Nevertheless, there is so much excellent material here that I give it

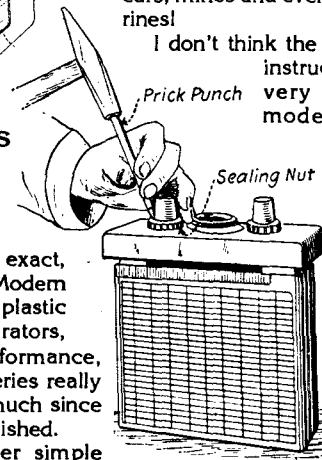
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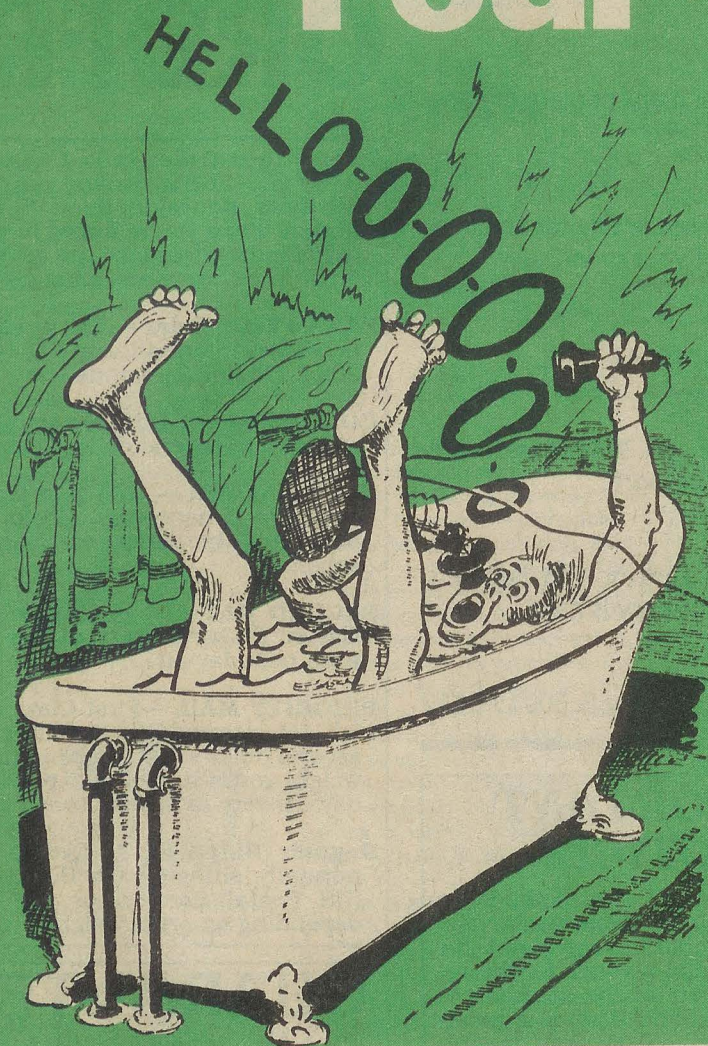
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